PART I

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

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PART I

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 - SERVICE BEING ACQUIRED

The Contractor shall provide the personnel, facilities, equipment, materials, supplies, and services, (except such facilities, equipment, materials, supplies and services as are furnished by the Government) necessary to perform the requirements and work set forth in this contract, and shall perform such requirements and work in a quality, timely, and cost-effective manner.

B.2 - OBLIGATION OF FUNDS AND FINANCIAL LIMITATIONS

The amount presently obligated by the Government with respect to this contract is specified in Clause I.119 - DEAR 970.5232-4 - Obligation of Funds (DEC 2000). Other financial limitations are also specified in Clause I.119 - DEAR 970.5232-4 - Obligation of Funds (DEC 2000).

B.3 - PERFORMANCE AND OTHER INCENTIVE FEES

(a) The transition activities shall be performed on a cost-reimbursement basis up to the amount specified in Clause H.42, Activities During Contract Transition, paragraph (d), and no fee shall be paid for these activities.

(b) In implementation of Clause I.93, Total Available Fee: Base Fee Amount and Performance Fee Amount, the Parties have agreed that the maximum available performance fees that may be earned by the Contractor in accordance with the provisions of Appendix B, Performance Evaluation and Measurement Plan, for the performance of the work under this contract commencing January 1, 2007 are as follows:

January 1, 2007 through September 30, 2007 - $2.662 million
October 1, 2007 through September 30, 2008 - $3.550 million
October 1, 2008 through September 30, 2009 - $3.882 million
October 1, 2009 through September 30, 2010 - $3.882 million
October 1, 2010 through September 30, 2011 - $3.882 million
October 1, 2011 through December 31, 2011 - $0.971 million

(c) If DOE determines that the Contractor has earned any Award Term after December 31, 2011, in accordance with the provisions of Clause F.2 - Award Term Incentive, the Parties have agreed that the maximum available performance fee that may be earned by the Contractor shall be:

January 1, 2012 through September 30, 2012 - $2.912 million
October 1, 2012 through September 30, 2013 - $3.882 million
October 1, 2013 through September 30, 2014 - $3.882 million
October 1, 2014 through September 30, 2015 - $3.882 million
October 1, 2015 through September 30, 2016 - $3.882 million
October 1, 2016 through December 31, 2016 - $0.971 million

(d) The maximum available performance fee that may be earned by the Contractor for any additional extensions of the period of performance beyond said five years shall be subject to negotiation between the Parties consistent with the Department of Energy Acquisition Regulation (DEAR) in effect at the time the fee is negotiated.

(e) At the end of each fiscal year, there shall be no adjustment in the amount of the maximum available performance fee based on differences between any estimate of cost for performance of the work and the actual cost for performance of the work. Fee is subject to adjustment only –

(1) under the provisions of Clause I.127, “Changes”; or other contract provisions; or

(2) for a +/- 10 percent change in the estimated fee base of $296.0 Million.

(f) Any adjustment in the amount of the fee under the provisions of paragraph (e) for the fees specified in paragraphs (b) and (c) above, or negotiation of fee under paragraph (d) above, shall take into consideration the ratio (see equation below) between the Contractor’s fee specified in paragraphs (b) and (c) above of the original contract and the maximum fees specified in Section L.9(c) of the Request for Proposal No. DE-AC02-06CH11359. The revised fee will be calculated in accordance with the fee policy then in effect, utilizing the adjusted fee base, while maintaining the ratio described above.

$$\frac{\text{Maximum Available Performance Fee for Applicable Year of paragraph (b) or (c)}}{\text{\$3,882,000 (to be prorated for the first and last fee period)}} = \text{Ratio}$$

B.4 - ALLOWABILITY OF SUBCONTRACTOR FEE

If the Contractor is part of a consortium, joint venture, and/or other teaming arrangement, the team shall share in this Contract fee structure and separate additional subcontractor fee for teaming partners shall not be considered an allowable cost under the contract. If a subcontractor, supplier, or lower-tier subcontractor is a wholly owned, majority owned, or affiliate of any team member, any fee or profit earned by such entity shall not be considered an allowable cost under this contract unless otherwise approved by the Contracting Officer.

B.5 - PROVISIONAL PAYMENT OF PERFORMANCE FEE

The Contractor may, subject to the approval of the Contracting Officer, be paid provisional performance fee payments consistent with the provisions of the clause in Section I entitled, "Payments and Advances." The Contractor shall promptly refund to the Government any amount of provisional performance fee paid that exceeds the amount of performance fee earned.

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SECTION C

DESCRIPTION/SPECS./WORK STATEMENT

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PART I

SECTION C - DESCRIPTION/SPECS./WORK STATEMENT

C.1 - INTRODUCTION

This Performance-Based Management Contract (PBMC) is for the management and operation of the Fermi National Accelerator Laboratory (FNAL or the Laboratory). The Contractor shall, in accordance with the provisions of this contract, accomplish the missions and programs assigned by the U.S. Department of Energy (DOE or the Department) and manage and operate the Laboratory. The Laboratory is one of DOE's Office of Science (SC) single-program laboratories. The Laboratory is a Federally Funded Research and Development Center (FFRDC) established in accordance with the Federal Acquisition Regulation (FAR) Part 35 and operated under this management and operating (M&O) contract, as defined in FAR 17.6 and DOE Acquisition Regulation Supplement (DEAR) 917.6.

This contract reflects the Department's effort to enable the Contractor to achieve more highly effective and efficient management of the Laboratory, outstanding science and technology results in a safe and secure environment, more cost effective operations, and enhanced Contractor accountability. Toward this end, this contract establishes a process for minimizing the use of unnecessary DOE orders by tailoring existing and new orders that will enable the Contractor to propose alternate standards, which rely primarily on state and federal laws and regulations, and management processes based on national standards, certified systems and best business practices. Contractor managers shall be held more accountable for maintaining risk mitigation as Laboratory processes and assurance models change.

This contract reflects the application of performance-based contracting approaches and techniques which emphasize results/outcomes and minimize "how to" performance descriptions. The Contractor has the responsibility for total performance under the contract, including determining the specific methods for accomplishing the work effort, performing quality control, and assuming accountability for accomplishing the work under the contract. Accordingly, this PBMC provides flexibility, within the terms and conditions of the contract, to the Contractor in managing and operating the Laboratory.

Desired results of this contract include improved Contractor operational efficiencies, allocations of Contractor oversight resources to direct mission work, and streamlined and more effective federal line management focused on a system-based approach to federal oversight with increased reliance on the results obtained from certified, nationally recognized experts and other independent reviewers. Moreover, science and technology have improved peer review metrics, and incentives to achieve extraordinary results.

Under this PBMC, it is the Contractor's responsibility to develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing the mission of the Laboratory. DOE expects the Contractor to produce effective and efficient management structures, systems, and operations that maintain high levels of quality and safety in accomplishing the work required under this contract, and that to the extent practicable and appropriate, rely on national, commercial, and industrial standards that can be verified and

certified by independent, nationally recognized experts and other independent reviewers. The Contractor shall conduct all work in a manner that optimizes productivity, minimizes waste, and fully complies with all applicable laws, regulations, and terms and conditions of the contract.

To the maximum extent practical, this PBMC shall:

(a) Describe the requirements in terms of outcome or results required rather than the methods of performance of the work;

(b) Use a limited number of systems-based measurable performance standards (i.e., terms of quality, timeliness, quantity, etc.) to drive improved performance and increased effective and efficient management of the Laboratory;

(c) Provide for appropriate financial incentives (e.g., fee) when performance standards and contract requirements are achieved;

(d) Specify procedures for reduction of fee when services are not performed or do not meet contract requirements; and

(e) Include non-financial performance incentives where appropriate.

C.2 - IMPLEMENTATION OF DOE'S MISSION FOR FNAL

The Contractor shall develop a compelling plan to implement the DOE's SC strategic mission for the Laboratory, as defined below in C.4 "Mission and Major Programs." Within this Plan, the Contractor will map the Laboratory's core competencies to this Laboratory mission. The Contractor will highlight the unique roles the Laboratory fills in SC's capability to accomplish its missions and, more broadly, that of the Department. Upon approval by the Department, the Plan shall be captured within the Fermilab Strategic Plan, which shall be updated annually in accordance with instructions to be issued by the Fermi Site Office (FSO) Manager.

The Performance Evaluation and Measurement Plan (PEMP), as called for within the clause entitled, "Standards of Contractor Performance Evaluation", identifies performance outcomes and indicators, which are updated and agreed upon by the Parties annually, as standards against which the Contractor's overall performance of scientific, technical, operational, and/or managerial obligations under this contract shall be assessed.

C.3 - PERFORMANCE EXPECTATIONS, OBJECTIVES, AND MEASURES

C.3.1 - Core Expectations

C.3.1.1 - General

The relationship between DOE and its national laboratory management and operating Contractors is designed to bring best practices for research and development to bear on the Department's missions.

Through application of these best practices, the Department seeks to assure both outstanding programmatic and operational performance of today's research programs and leadership to assure the relevance to DOE's mission needs, the productivity and quality of its programs to lead the world in meeting tomorrow's needs. Accordingly, DOE has substantial expectations of the Contractor in the areas of: program delivery and mission accomplishment; laboratory stewardship; and excellence in laboratory operations and financial management.

C.3.1.2 - Program Development and Mission Accomplishment

The Contractor is expected to provide the highest quality of planning, management, and execution of assigned research and development programs. The Contractor is expected to execute assigned programs so as to achieve the greatest possible impact on DOE's mission objectives, to aggressively manage the Laboratory's science and technology capabilities and intellectual property to meet these objectives, and to initiate innovative concepts and research proposals that are in concert with DOE missions. The Contractor shall propose work that will advance DOE's mission objectives and that is aligned to Laboratory capabilities. The Contractor shall strive to meet the highest standards of scientific quality and productivity, "on-time, on budget, as-promised" delivery of program deliverables, and first-rate service to the research community through user facility operation.

The Contractor is expected to demonstrate benefit to the nation from R&D investments by transferring technology to the private sector and supporting excellence in science and mathematics education consistent with achieving continuous progress towards DOE's core missions.

C.3.1.3 - Laboratory Stewardship

The Contractor is expected to be an active partner with DOE in assuring that the Laboratory is renewed and enhanced to meet future mission needs. Within the constraints of available resources and other Contract requirements, the Contractor, in partnership with DOE, shall:

(a) Maintain an understanding of DOE's evolving Laboratory vision and long-term strategic plan. Address the co-evolution of Laboratory capabilities to meet anticipated DOE and national needs.

(b) Attract, develop, and retain an outstanding work force, with the skills and capabilities to meet DOE's evolving mission needs.

(c) Renew and enhance research facilities and equipment so that the Laboratory remains at the state-of-the-art over time and is

well-positioned to meet future DOE needs.

(d) Build and maintain a financially viable portfolio of research programs that generates the resources required to renew and enhance Laboratory research capabilities over time.

(e) Maintain a vibrant relationship with the broader research community, to enhance the intellectual vitality and research relevance of the Laboratory, and to bring the best possible capabilities to bear on DOE mission needs through partnerships.

(f) Build a positive, supportive relationship founded on openness and trust with the community and region in which the Laboratory is located.

C.3.1.4 - Operational and Financial Management Excellence

The Contractor is expected to effectively and efficiently manage and operate the Laboratory through best-in-class management practices designed to foster world-class research while assuring the protection and proper maintenance of DOE research and information assets, the health and safety of Laboratory staff and the public, and the environment. The Contractor is expected to operate the Laboratory so as to meet all applicable laws, regulations, and requirements. The Contractor is expected to manage the Laboratory cost-effectively, while providing the greatest possible research output per dollar of research investment, and, accordingly, to develop and deploy management systems and practices that are designed to enhance research quality, productivity, and mission accomplishment consistent with meeting operational requirements.

C.3.2 - Performance Evaluation Expectations

The performance expectations of this contract are broadly set forth in this Section and reflect the DOE's minimum needs and expectations for Contractor performance. Specific performance work statements, performance standards (measures applied to results/outputs), acceptable performance levels (performance expectations), acceptable quality levels (permissible deviations from performance expectations), and related incentives shall be established annually, or at other such intervals determined by the DOE to be appropriate. The related incentives may be monetary, or where monetary incentives are not desirable or considered effective, the Contractor's performance may be used as a factor which directly affects the past performance report card, or a factor in a decision to reduce or increase DOE oversight or Contractor reporting, as appropriate.

In performance under this contract, the Contractor shall be evaluated within the following general performance goals and expectations:

(a) Science and Technology (S&T) - The Contractor will deliver innovative, forefront science and technology aligned with DOE strategic goals in a safe, environmentally sound, and efficient manner, and will conceive, design, construct, and operate world-class user facilities.

(1) Mission Accomplishment (Quality and Productivity of R&D): The Contractor shall produce high-quality, original, and creative scientific results that demonstrate sustained scientific and technological progress and impact, while receiving appropriate external recognition of accomplishments. The Contractor shall also contribute to overall research and development goals of the Department and its customers. Important performance factors for the research and development are: overall productivity/output; impact including the significance of the R&D; leadership including recognition of Science and Technology accomplishments; and delivery including timeliness such as meeting milestones, goals, and other commitments.

(2) Construction and Operation of Research Facilities: The Contractor shall develop, construct and operate research facilities and equipment that are needed to insure the Laboratory can meet its S&T missions today and in the future, while effectively and efficiently maintaining current S&T facilities and equipment and providing effective, efficient operation of user facilities to maximize the value of facilities. Important performance factors are: meeting construction schedules, budgets, performance specifications and objectives; operating the facilities reliably, cost effectively, and ensuring that the facilities are available when needed; providing high utilization by providing a science and technology foundation to maximize the value of the facility; and leveraging the facilities by making them available for other customers.

(3) Project/Program Management: The Contractor shall provide for effective and efficient stewardship of resources and capabilities, through expert planning, delivery, and risk management. Important performance factors are: establishing a Laboratory vision that includes maintaining key competencies to support research programs and making quality hires; planning including high quality research plans, adequate consideration of technical risks, success in identifying and avoiding/overcoming technical problems and the ability to take advantage of new opportunities; and linking financial data to effective decision making and redirecting resources/projects in response to changing conditions.

(b) Contractor Leadership/Stewardship - The Contractor shall provide for the effective and efficient management and operation of the Laboratory through a strategic vision and effective planning to assure the Laboratory mission is accomplished. Important performance factors are: Laboratory-wide strategic vision and effective planning including the creation of partnerships and alliances, selection of Laboratory priorities and culture, educational programs, technology transfers, and developing a working relationship with the local community; responsiveness and accountability; and corporate involvement/ contributions including joint appointments, innovative financing proposals, infrastructure support and an overall investment in the success of the Laboratory.

C.3.3 - Performance Objectives and Measures

The results-oriented performance objectives of this contract are stated in the PEMP (Part III, Section J, Appendix B), and/or in the Work Authorization Directives issued annually in accordance with the special clause entitled, “Long-Range Planning, Program Development and Budgetary Administration”. The Contractor shall develop a five-year Fermilab Strategic Plan for the overall direction of the Laboratory and for the accomplishment of these objectives. The Plan shall be actively maintained and annually updated in accordance with Strategic Planning instructions issued by the DOE Site Manager. The objectives shall be accomplished within an overall framework of management and operational performance requirements and standards contained elsewhere in this contract. To the maximum extent practicable, these requirements and standards have also been structured to reflect performance-based contracting concepts, including the clause entitled, “Application of DOE Contractor Requirement Documents”, which permits the Contractor to propose to the Contracting Officer alternative and/or tailored approaches based on national, commercial or industrial standards and best business practices to meet the outcomes desired by the Government.

DOE’s Quality Assurance/Surveillance Plan (QASP) for evaluating the Contractor’s performance under the contract shall consist primarily of the PEMP (as called for within the Part II, Section I contract clause entitled, “Total Available Fee: Base Fee Amount and Performance Fee Amount”. The QASP establishes the process DOE shall use to ensure that the Contractor has performed in accordance with the performance standards and expectations. The QASP shall summarize the performance standards, expectations and acceptable quality levels for each task; describe how performance will be monitored and measured; describe how the results will be evaluated; and state how the results will affect contract payment.

The Contractor shall develop and implement a Laboratory assurance process, acceptable to the Contracting Officer, which provides reasonable assurance that the objectives of the Contractor’s management systems are being accomplished and that the systems and controls will be effective and efficient. The Contractor’s assurance process shall reflect an understanding of the risks,

maintain mechanisms for eliminating or mitigating the risks, and maintain a process to ensure that the management systems and their attendant assurance process(es) meet contract requirements.

C.4 - STATEMENT OF WORK

(a) Work Statement

The Contractor shall, in accordance with the provisions of this contract, provide the intellectual leadership and management expertise necessary and appropriate to manage, operate, and staff the Fermi National Accelerator Laboratory (also referred to as Fermilab); to accomplish the research missions and roles assigned by the DOE to the Laboratory; and to perform all other work described in this Statement of Work (SOW). DOE research activities are assigned through strategic planning, program coordination, and cooperation between the Laboratory and DOE.

Inasmuch as the assigned missions of the Laboratory are dynamic, this SOW is not intended to be all-inclusive or restrictive, but is intended to provide a broad framework and general scope of the work to be performed at the Laboratory during the term of the contract. This SOW does not represent a commitment to, or imply funding for, specific projects or programs. All projects and programs will be authorized individually by DOE and/or other work sponsors in accordance with the provisions of this contract.

All work under this contract shall be conducted in a manner that will protect the environment and assure the safety and health of employees and the public. The Contractor shall implement an Integrated Safety Management System (ISMS) that includes an Environmental Management System (EMS). In performing the contract work, the Laboratory shall implement appropriate program and project management systems to track progress and pursue cost-effectiveness in work activities; develop integrated plans and schedules to achieve program objectives, incorporate input from DOE and stakeholders; maintain sufficient technical expertise to manage activities and projects throughout the life of a program; maintain Laboratory facilities and infrastructure as necessary to accomplish assigned missions; and utilize appropriate technologies and management systems to improve cost efficiency and performance.

(b) Mission and Major Programs

(1) Laboratory Goals, Primary Program Sponsor and Mission

a. Laboratory Goals

i. Enable the most powerful attack on the fundamental science questions of the field of high-energy physics.

ii. Provide world class facilities for high-energy physics as part of the global network of particle physics.

iii. Develop science and technology for particle physics and cosmology research.

b. Primary Program Sponsor

The primary sponsor of work at Fermilab is the Office of Science's (SC), High-Energy Physics Program.

Additionally, the Contractor may be authorized to pursue other DOE and non-DOE missions that derive from the Laboratory's missions and utilize the Laboratory's core competencies. Collaborations with other federal agencies include the National Science Foundation.

A summary of current Laboratory programs follows. The Contractor will update descriptions of major programs in the Fermilab Strategic Plan.

c. Mission

The Contractor will document the mission statement in the Fermilab Strategic Plan.

Fermilab's mission is to advance the understanding of the fundamental nature of matter and energy, by providing leadership and resources for qualified researchers to conduct research at the frontiers of high-energy physics and related disciplines.

Fermilab leads the nation in the construction and operation of large user facilities and in developing the underlying technology for particle physics research. Fermilab's accelerator complex supports the most diverse particle physics program of any laboratory in the country, a program that includes collider experiments, neutrino experiments, experiments with hadron beams, and experiments testing new accelerator and detector technologies.

The Laboratory's mission is built on a foundation of five core competencies:

i. Construction and operation of experimental facilities for particle physics and particle astrophysics

ii. Research, design, and development of accelerator and detector technology

iii. High-performance scientific computing and networking

iv. International scientific collaboration

v. Theoretical particle physics and astrophysics

(2) Major Fermilab research facilities include:

Tevatron Collider

The Tevatron Collider is the highest energy collider in operation and is the only facility in the world that can now address many of the central questions in the realm of high-energy physics. The Tevatron Collider collides protons and antiprotons with center of mass energy of approximately 2 TeV. Two detectors, CDF and D-Zero, observe these collisions.

Neutrinos at the Main Injector (NuMI)

The NuMI facility provides neutrinos for the Main Injector Neutrino Oscillation Search (MINOS) experiment at Fermilab designed to study the phenomena of neutrino oscillations. The beam of neutrinos is sent through the two MINOS detectors, one at Fermilab and one in the Soudan Mine in northern Minnesota.

Mini-Booster Neutrino Experiment (MiniBooNE)

The 8 GeV proton beamline provides protons to the MiniBooNE experiment. MiniBooNE refers to the first phase of the BooNE experiment and describes the neutrino oscillation measurements that are made with a single detector located at Fermilab.

Main Injector Particle Production (MIPP)

The MIPP facility provides a beamline off the Main Injector accelerator to provide the experimental capability to measure particle production using various particle beams between the energy of 5 GeV and 120 GeV.

(3) Office of Science High-Energy Physics Program

The Contractor shall conduct work to: perform frontier research in theoretical and experimental high-energy physics; build, maintain and operate state of the art experimental user facilities for high-energy physics; perform research and development work in accelerator science, experimental detector design and computing relevant to high-energy physics; support operations of existing DOE high-energy physics experiments and carry out construction projects in high-energy physics areas as assigned.

Fermilab conducts major research programs in the following areas:

Collider Physics

Several of the most important problems in particle physics can only be addressed with colliders operating at the energy frontier. Possible discoveries include the Higgs boson, supersymmetry, and extra dimensions. In addition, the most attractive models for dark matter involve particles that can be produced and studied in the current generation of collider experiments.

The Contractor shall continue operation of the Fermilab Tevatron. Two international collaborations with a total of 1500 scientists perform research with the CDF and DZero detectors. The Tevatron program is currently scheduled to operate through 2009.

The Large Hadron Collider (LHC) at CERN, Geneva, Switzerland will start to operate around 2007-8. About 3000 scientists will conduct research at the new energy frontier with the A Toroidal LHC Apparatus (ATLAS) and Compact Muon Solenoid (CMS) experiments. The LHC work of Fermilab under this contract consists of the following: 1.) to serve as host laboratory for the US-LHC accelerator project, building accelerator components for the LHC, and for the LHC Accelerator Research Program (LARP); and 2.) to serve as the host laboratory for the U.S. part of the effort to build the CMS detector, and for the CMS research program for American researchers.

Progress has been made in the last year toward realizing an International Linear Collider. The Global Design Effort (GDE) will be anchored by Fermilab and SLAC in the U.S. and several laboratories in Europe and Asia. Under this contract, Fermilab will have the lead responsibility within the U.S. for developing the superconducting accelerating modules and other responsibilities as directed by DOE.

The Contractor will also perform high performance scientific computing in support of Fermilab's major research facilities and the upcoming LHC experiments at CERN. The data collected from these experiments are becoming orders of magnitude more voluminous; petabytes per year are expected. In order to satisfy these needs grid computing has been conceived as an expansion of distributed computing.

Neutrino Physics

Neutrino physics has made rapid advances in recent years. Experiments are trying to understand the nature of neutrino mass, how neutrinos oscillate from one flavor into another, and whether a new matter-antimatter asymmetry can be discovered in the neutrino sector.

The Contractor shall continue the accelerator-based program now operating in neutrino physics at Fermilab. The MINOS experiment has recently started to operate, using the neutrinos from the NuMI beam line. The near detector is situated on the Fermilab site, the far detector is in the Soudan mine in northern Minnesota. The MiniBooNE experiment has been operating for three years using the Booster Neutrino Beam.

To ensure that the U.S. has a lead role for some of the critical experiments needed in the distributed program of neutrino physics, the Contractor is expected to exploit the unique capabilities of Fermilab.

Particle Astrophysics

Particle astrophysics is the science at the interface of particle physics, cosmology, and astrophysics. It requires several experimental approaches, each of which gathers very different experimental information.

Fermilab physicists will continue to participate in a research program to detect the dark matter halo by observing its interactions with normal matter. The Cryogenic Dark Matter Search-II (CDMS-II) experiment operating in the Soudan mine is part of this research effort. The Contractor shall manage the construction and operation of the CDMS-II experiment for a broad collaboration with many university groups.

Studies of the cosmic microwave background and results from various astronomical observatories and sky surveys are major sources of what is known about dark matter and dark energy. In view of Fermilab's contributions to and the scientific importance of the Sloan Digital Sky Survey (SDSS), the Contractor shall continue participation in operation of the SDSS.

The Contractor shall also continue project management functions and operations of the Auger Cosmic Ray observatory in Malargue, Argentina.

Quark Physics

The Fermilab facilities are used for broad spectrum test beams and experiments to measure quark level processes and cross sections needed for interpretation of neutrino, collider or astrophysics experiments. Quark physics research is an important example of the lab facilities being made available to the user community for high energy physics research. The availability of the facilities for the purposes of furthering research in high energy physics is a service to the community, and the Contractor shall ensure that the laboratory's facilities are available for users performing qualified research and other activities ancillary to the OHEP mission.

Accelerator Research and Development

The primary technology of particle physics is that of accelerators, and the advance of the field has been closely tied to breakthroughs in accelerator

development. The Contractor is expected to perform a significant role in research and development in this area.

Superconducting magnet technology is fundamental to large hadron colliders, including the Tevatron and the Large Hadron Collider. The Contractor is expected to continue to participate in the development of superconducting magnets.

Superconducting accelerating modules based on superconducting RF (SCRF) technology form a basic unit of the International Linear Collider (ILC). Fermilab was a member of the TESLA collaboration that developed the SCRF technology selected for the ILC. The Contractor shall participate in the U.S. effort on the ILC, and will be host lab for the U.S. SCRF effort.

Theoretical Physics

Fermilab has achieved significant prominence in theoretical particle physics and theoretical astrophysics. These activities include field theory, phenomenology, computer simulations, astrophysical studies, and cosmology. In addition, the lab has fostered a vibrant visitors program, and seminars and workshops on theoretical physics topics relevant to these areas of interest. The Contractor shall continue to perform research in theoretical physics and carry on these programs to maintain Fermilab's position of prominence in this area.

(4) Technology Transfer Programs

The Contractor shall contribute to U.S. technological competitiveness through research and development partnerships with industry that capitalize on the Contractor's expertise and facilities. Principal mechanisms to effect such contributions are: cooperative research and development agreements, access to user facilities, reimbursable work for non-DOE activities, personnel exchanges, licenses, and subcontracting.

The Contractor shall cooperate with industrial organizations to assist in increasing U.S. industrial competitiveness, by assisting in the application of science and technology R&D. Such cooperation may include an early transfer of information to industry by arranging for the active participation by industrial representatives in the Contractor's programs. Cooperation with industrial partners may include long-term strategic partnerships aimed at commercialization of Laboratory inventions or the improvement of industrial products. The Contractor shall respond to specific near-term technological needs of industrial companies with special emphasis given to working with the types of businesses identified in the Small Business Subcontracting Plan clause of this contract. The Contractor is encouraged to develop and capitalize on productive relationships with regional and local companies and through forums such as conferences, workshops, and traveling presentations. It is anticipated

that these organizations will be particularly effective participants in the Laboratory's technology transfer activities in promoting a mutually beneficial relationship between DOE and the communities surrounding the Laboratory.

Cooperation may also include use by industrial organizations of Laboratory facilities and other assistance as may be authorized, in writing, by the Contracting Officer.

(5) University and Science Education Program

The Contractor shall work with colleges and universities, with special emphasis on Historically Black Colleges and Universities/Minority Institutions, and initiate new programs to enhance science and mathematics education at all levels. The Contractor shall encourage participation by a diverse group of faculty and students in Laboratory programs to bring their talents to bear on important research problems and contribute to the education of future scientists and engineers. The Contractor shall also conduct programs for students and faculty to enrich mathematics and science education. A particular purpose of these programs is to encourage members of under-represented societal groups to enter careers in science and engineering.

The Contractor shall maintain its programs of cooperation with the academic and educational community and with nonprofit research institutions for the purpose of promoting research and education in scientific and technical fields of interest to DOE's programs. This cooperation may include, but is not limited to, such activities as: (i) Operation of the U.S. Particle Accelerator School; (ii) joint experimental programs with colleges, universities, and nonprofit research institutions; (iii) interchange of college and university faculty and Laboratory staff; (iv) student/teacher educational research programs at the pre-collegiate and collegiate level; (v) post-doctoral programs; (vi) arrangement of regional, national, or international professional meetings or symposia; (vii) use of special Laboratory facilities by colleges, universities, and nonprofit research institutes; or, (viii) provision of unique experimental materials to colleges, universities, or nonprofit research institutions or to qualified members of their staffs.

(6) International Collaboration

In accordance with DOE policies, and in consultation with DOE, the Contractor shall maintain a broad program of international collaboration in areas of research of interest to the Laboratory and to DOE.

(7) International Linear Collider (ILC)

DOE has expressed a clear interest in the U.S. hosting the ILC at a site on and/or near Fermilab. The Contractor will continue to perform the R&D related to the ILC as discussed under section C.4 (b)(3). The Contractor will also continue to coordinate with and support the Global Design Effort (GDE). In the event that the Department decides to pursue a bid to host the ILC at a site on

and/or near Fermilab, the Contractor will play a major role in preparing the bid, including, but not limited to, providing data, analysis, community involvement, site studies, and other activities as directed by DOE.

(8) Other Programs

The Contractor is responsible for the conduct of such other programs and activities as the Parties may mutually agree, including: (i) The providing of the facilities of the Laboratory to the personnel of public and private institutions for the conduct of research, development, and demonstration work, either within the general plans, programs and budgets agreed upon from time to time between DOE and the Contractor, or as may be specifically approved by DOE. The Laboratory facilities shall be made available on such other general bases as DOE may authorize or approve; (ii) The conduct of research and development work for non-DOE sponsors which is consistent with and complementary to the DOE's mission and the Laboratory's mission under the contract, and does not adversely impact or interfere with execution of DOE-assigned programs, does not place the facilities or Laboratory in direct competition with the private sector and for which the personnel or facilities of the Laboratory are particularly well adapted and available, as may be authorized, in writing, by the Contracting Officer; (iii) The dissemination and publication of unclassified scientific and technical data and operating experience developed in the course of the work; (iv) The furnishing of such technical and scientific assistance (including training and other services, material, and equipment), which are consistent with and complementary to the DOE's and Laboratory's mission under this contract, both within and outside the United States, to the DOE and its installations, Contractors, and interested organizations and individuals.

(c) Administration and Operation of the Laboratory

The Contractor is responsible for the operation, including management and maintenance, of the Laboratory including the planning in consultation with DOE and the making of recommendations to DOE for new buildings, facilities and utilities and alteration of existing buildings, facilities, and utilities on the Laboratory site and elsewhere, including the furnishing of all necessary basic design and operating criteria. When requested by DOE, the Contractor shall provide for the design, engineering, construction, and alteration, by subcontract or otherwise, of such buildings, facilities, and utilities on the Laboratory site and elsewhere as authorized or approved, in writing, from time to time by DOE. Before proceeding with other than design aspects of any project which the Contractor, acting in good faith, considers may reasonably be within the coverage of the Davis-Bacon Act (40 U.S.C. 314 et seq.), the Contractor shall obtain a written determination by the Contracting Officer as to the applicability of the Davis-Bacon Act to such project. When it is determined that the Davis-Bacon Act does cover a particular work project, the Contractor shall procure by subcontract the covered work in accordance with DOE approved procedures.

(1) Strategic Planning

The Contractor shall perform overall integrated planning, including strategic planning and the development of a strategic plan, covering all programs, issues and needs including, acquisition, upgrades, and management of Government-owned, leased or controlled facilities and supporting infrastructure and real property located at the site.

(2) Protection of the Workers, the Public and the Environment

The safety and health of workers and the public and the protection and restoration of the environment are fundamental responsibilities of the Contractor. Accordingly, the Contractor shall: (i) Take necessary actions, to minimize injuries and/or fatalities and prevent worker exposures and environmental releases in excess of established limits; (ii) Establish clear environmental, safety, and health (ES&H) priorities and manage activities in proactive ways that effectively increase protection to the environment and to public and worker safety and health; and, (iii) Carry out all activities in a manner that complies with health, safety and environmental regulations; minimizes wastes; and complies with DOE Directives.

The Contractor shall maintain a system that clearly communicates the roles, responsibilities, and authorities of line managers, and that holds line managers accountable for work practices and performance in a manner that ensures protection of workers, the public and the environment. Specifically, (i) the Laboratory Director shall hold direct reports accountable for strong leadership and management of risks within their area of responsibility; (ii) line managers shall be responsible for understanding the hazards associated with, and controls necessary for, safe performance of work; and (iii) the ES&H program shall be operated as an integral, but visible, part of how the organization conducts business, including prioritizing work and allocating resources based on risk reduction.

The Contractor shall maintain effective management systems to identify deficiencies, resolve them in a timely manner, ensure that corrective actions are implemented (addressing the extent of conditions, root causes, and measures to prevent recurrence), and prioritize and track commitments and actions.

The Contractor shall maintain a structured, standards-based approach to planning and control of work including identification and implementation of ES&H standards and requirements that are appropriate for the work to be performed and related hazards.

The Contractor shall maintain an organization that supports effective ES&H management by ensuring appropriate levels of ES&H staffing and competence at every level within Fermilab. Specifically, Contractor shall assure that employees are trained, qualified, and involved in aspects of the organization's activities, including providing input to the planning and execution of work, and

identification, mitigation/elimination of workplace hazards. Contractor shall, similarly, assure that subcontractor employees and users are trained and qualified on job tasks, hazards, and DOE and Fermilab Departmental safety policies, expectations, and requirements, and shall flow applicable ES&H requirements down to subcontractors.

The Contractor must ensure that a Chronic Beryllium Disease Prevention Program (CBDPP) is prepared for the facility that meets the general CBDPP requirements specified in 10 CFR Part 850 – Final Rule issued December 8, 1999.

Finally, the Contractor shall continue to practice effective environmental management.

(3) Community Involvement

The Contractor shall maintain an effective relationship between the Laboratory and the community.

Refer to Clause I.72, DEAR 952.204-75 - Public Affairs, for more detail.

(4) Maintenance

In accordance with DOE standards, the Contractor shall maintain property assets in a manner which ensures the continuity of research operations, fulfillment of program requirements, and ensures the property will satisfy the requirements of current use and DOE guidance. The Contractor must maintain property assets in a manner that promotes operational safety, worker health, environmental compliance, property preservation, and cost-effectiveness while meeting program missions. This requires a balanced approach that not only sustains assets, but also provides for their recapitalization.

(5) Business Management

(i) Human Resources Management. The Contractor shall establish and maintain human resource systems which attract and retain outstanding employees, and continually motivate them to achieve high productivity in scientific research and Laboratory operations.

The Contractor also shall create and maintain at the Laboratory an environment that promotes diversity and fully utilizes the talents and capabilities of a diverse workforce. The Contractor shall seek to recruit a diverse workforce by promoting and implementing DOE and Laboratory goals. Special consideration will be given to Historically Black Colleges and Universities/ Minority Institutions as potential resource pools. The Contractor shall also strive to promote diversity in all of the Laboratory's subcontracting efforts with emphasis on the use of the types of

businesses identified in the Small Business Subcontracting Plan clause of this contract.

(ii) Financial Management. The Contractor shall maintain a financial management system responsive to the obligations of sound financial stewardship and public accountability. The overall system shall include an integrated accounting system suitable to collect, record, and report all financial activities; a budgeting system which includes the formulation and execution of all resource requirements needed to accomplish projected missions and formulate short- and long-range budgets; an internal control system for all financial and other business management processes; and a disbursements system for both employee payroll and supplier payments. The internal audit group for Fermilab shall report to the most senior governing body of the Contractor's parent organization.

(iii) Purchasing Management. The Contractor shall have a DOE-approved purchasing system to provide purchasing support and subcontract administration. The Contractor shall, when directed by DOE and may, but only when authorized by DOE, enter into subcontracts for the performance of any part of the work under this Contract.

(iv) Property Management. The Contractor shall have a DOE approved property management system that provides assurance that the Government owned, Contractor held property is accounted for, safeguarded and disposed of in accordance with DOE's expectations and policies. The Contractor shall perform overall integrated planning, acquisition, maintenance, operation, management and disposition of Government-owned personal and real property, and Contractor-leased facilities and infrastructure used by the Laboratory. Real property management shall include providing office space for the DOE FSO as directed by the DOE FSO Manager.

(v) Project Management. The Contractor shall maintain a project management system to ensure project scope is completed within budget and schedule. The system shall include an earned value management system consistent with requirements under DOE Order 413.3.

(vi) Other Administrative Services. The Contractor shall provide other administrative services, including logistics support to the DOE FSO. In addition, the Contractor shall perform all activities necessary to complete the following work resulting from the termination of Superconducting Super Collider Laboratory (SSCL) Contract No. DE-AC35-89ER40486:

(1) Administration of retiree benefits for eligible retired Universities Research Associates, Inc. SSCL employees;

(2) Intellectual property administration; and

(3) Records management.

(6) Integrated Safeguards and Security Management (ISSM). The Contractor shall protect Laboratory assets, personnel, property, and information, to sustain the science mission in a manner commensurate with risks. The Contractor shall conduct a Laboratory ISSM program to include physical site security, protection of Government property, cyber security protections, protection of information, personnel security, and access control for Laboratory staff and visitors, export controls, and counterintelligence.

(7) Legal Services. The Contractor shall maintain legal support for all contract activities including, but not limited to, those related to patents, licenses, and other intellectual property rights; subcontracts; technology transfer; environmental compliance and protection; labor relations; and litigation and claims.

(8) Emergency Management. The Contractor shall maintain an emergency management system to include emergency preparedness plans and procedures, and occurrence notification and reporting system, operation of an Emergency Operations Center and emergency response capabilities for local, regional, and national missions.

(9) Information Resources Management. The Contractor shall maintain information systems for organizational operations and for activities involving general purpose programming, data collection, data processing, report generation, software, electronic and telephone communications, and computer security. The Contractor shall provide computer resource capacity and capability sufficient to support Laboratory-wide information management requirements. The Contractor also shall operate a records management program.

(10) Self-Assessment Program. The Contractor shall conduct an ongoing self-assessment process that continually samples and validates actual program practice with prescribed DOE and Laboratory policies, standards and procedures.

(11) Waste Management. Based on DOE funding guidance and other guidance documents, all waste management activities shall be managed in an integrated manner such that waste is managed consistently and in compliance with all applicable regulatory requirements. The Contractor shall fully integrate all research, environmental remediation, and operations activities to meet all regulatory requirements. Waste management activities include: (A) timely characterization, consolidation, segregation and storage of waste; (B) treatment that complies with storage and/or disposal criteria; (C) efficient shipment of waste for treatment, storage and/or disposal; (D) maintaining sufficient and compliant waste storage space at the Laboratory to accommodate waste generation and waste backlog; and (E) implementation of an effective waste minimization and pollution prevention programs.

Based on DOE funding guidance and other guidance documents, the Contractor shall provide responsive and complete waste management services for characterization, treatment and storage through the appropriate use of existing facilities, new facilities, other DOE facilities, and private sector capabilities. Additionally, the Contractor shall implement control systems which integrate research and waste management programs to assure DOE that hazardous and radiological waste will not be stockpiled at the site.

(12) Facility Operations and Infrastructure. The contractor shall assist DOE through direct participation and other support in achieving DOE's energy efficiency goals and objectives in electricity, water, and thermal consumption, conservation, and savings, including goals and objectives contained in Executive Order 13423, Strengthening Federal Environmental, Energy, and transportation Management. The Contractor shall maintain and update, as appropriate, its Site Plan (as required elsewhere in the contract) to include detailed plans and milestones for achieving site-specific energy efficiency goals and objectives. With respect to this paragraph, the Plan shall consider all potential sources of funds, in the following order: 1) the maximum use of private sector, third-party financing applied on a life-cycle cost effective basis, particularly from Energy Savings Performance Contracts and Utility Energy Services Contracts awarded by DOE; and 2) only after third-party financing options are evaluated, in the event that energy efficiency and water conservation improvements cannot be effectively incorporated into a private sector financing arrangement that is in the best interests of the Government, then DOE funding and funding from overhead accounts can be utilized.

(d) General Responsibilities of the Parties

(1) DOE Responsibilities

DOE is responsible for all activities conducted under this contract and for assuring that Government funds are properly and effectively utilized. Accordingly, the proper discharge of such responsibilities requires that DOE shall have the authority to:

(i) exercise appropriate general control over the contract work;

(ii) have full access to information concerning performance of such work;

(iii) conduct periodic and other appraisals of programmatic, project and managerial objectives and milestones and consult with the Contractor regarding these and other matters of mutual interest; and

(iv) in accordance with other provisions of the contract, have the authority to review and approve major policies and procedures affecting administrative and operating areas.

(2) Contractor Responsibilities

The Contractor shall be responsible for the diligent and vigorous performance of the contract work in accordance with its best scientific, technical, managerial and administrative judgments. Accordingly, the proper discharge of such responsibility requires that the Contractor shall:

(i) formulate and establish Laboratory policies and programs;

(ii) exercise appropriate managerial control over the programmatic and operational activities of the Laboratory;

(iii) respond, in a timely manner, to recommendations made by DOE as a result of its appraisals;

(iv) have the right to be kept continually advised, where pertinent, of DOE's current short and long-term objectives, and to confer with DOE with respect thereto and in connection with the formulation of plans or policies which may have a significant effect upon the Laboratory;

(v) establish policies and objectives for cooperative research and educational programs between the scientific and technological community and the Laboratory; and

(vi) cooperate in every reasonable way with individuals or groups whose expert or consultative services DOE may choose to use to review and evaluate the scientific, technical, or other aspects of the contract work.

C.5 - PLANS AND REPORTS

The Contractor shall submit periodic plans and reports, in such form and substance as required by the Contracting Officer. These periodic plans and reports shall be submitted at the intervals, and to the addresses and in the quantities as specified by the Contracting Officer. Where specific forms are required for individual plans and reports, the Contracting Officer shall provide such forms to the Contractor. The Contractor shall require subcontractors to provide reports that correspond to data requirements the Contractor is responsible for submitting to DOE. Plans and reports which may be submitted in compliance with this provision are in addition to any other reporting requirements found elsewhere in other clauses of this contract. It is the intention of DOE to consult with the Contractor in determining the necessity, form and frequency of any reports required to be submitted by the Contractor to DOE under this contract.

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PACKAGING AND MARKING

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SECTION D - PACKAGING AND MARKING

D.1 - PACKAGING

Preservation, packaging, and packing for shipment or mailing of all work delivered hereunder shall be in accordance with good commercial practice and adequate to insure acceptance by common carrier and safe transportation at the most economical rates.

D.2 - MARKING

Each package, report or other deliverable shall be accompanied by a letter or other document which:

(a) Identifies the contract number under which the item is being delivered.

(b) Identifies the contract requirement or other instruction which requires the delivered item(s).

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INSPECTION AND ACCEPTANCE

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SECTION E - INSPECTION AND ACCEPTANCE

E.1 - FAR 52.246-9 - INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM) (APR 1984)

The Government has the right to inspect and evaluate the work performed or being performed under the contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

E.2 – CERTIFICATION

In order for the Contracting Officer to accept any products or services funded by the Recovery Act, the Contractor shall certify that the items were delivered and/or work was performed for a purpose authorized under the Recovery Act.

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SECTION F

DELIVERIES OR PERFORMANCE

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SECTION F - DELIVERIES OR PERFORMANCE

F.1 – PERIOD OF PERFORMANCE

(a) This contract shall be effective as specified in Block No. 28 – Award Date, of Standard Form 33, and shall continue up to and including December 31, 2016, unless sooner terminated according to its terms. The contract may be extended according to its terms. The contract may be extended in accordance with Clause F.2 – AWARD TERM INCENTIVE (SPECIAL).

(b) The contract transition period is from award date through December 31, 2006.

F.2 - AWARD TERM INCENTIVE (SPECIAL)

(a) Definitions. For purposes of this clause:

(1) "A" means notably exceeds expectations of performance as set within performance measures identified for each Objective or within other areas within the purview of the Objective. The term "A" may be expressed using numbers, adjectives, or any other assessment approach deemed appropriate by the Government.

(2) "B+/Meets Expectations" means the rating available to the Contractor under the performance evaluation process where the Contractor has met the stated contract performance objectives. The term "meets expectations" may be expressed using numbers, adjectives, or any other assessment approach deemed appropriate by the Government.

(3) "Award Term Determination Official (ATDO)" means the Department of Energy official designated to determine whether the contractor has met the contractual requirements in order to earn any award term extension during an evaluation period. The ATDO and the Fee Determination Official (FDO) may be the same person.

(4) "Initial contract term" for purposes of this clause only, means the period of performance commencing on the date the contractor assumes full responsibility for the Laboratory pursuant to the provisions of Clause H.42(a) through the end date specified in Clause F.1(a) above.

(b) Eligibility for Award Term Extensions. In order for the contractor to earn a contract term extension pursuant to the award term incentive, the contactor must:

(1) Have been assessed by the FDO to have achieved an overall rating of at least an "A-" for Science and Technology and an overall rating of at least a "B+" for Management and Operations for each performance evaluation period (except as provided in (2) below), and, meet the contract performance goals, objectives, standards, or criteria and other contract requirements applicable to earning additional award term, as may be defined in the Performance Evaluation and Measurement Plan (or equivalent document), as determined by the ATDO. Provided, however, that the Contractor must also obtain a minimum score of at least 3.1 for each individual Science and Technology Goal and 2.5 for each individual Management and Operations Goal. And, provided, further that the foregoing proviso shall also apply to subparagraph (b) (2) below with respect to the second and third performance evaluation periods.

(2) With respect to the evaluation period for the first award term extension, the Contractor must achieve a rating of at least "B+" for both Science and Technology and Management and Operations for the first performance evaluation period and a rating of at least an "A-" for Science and Technology and a rating of at least a "B+" for Management and Operations for each of the next two performance evaluation periods.

(c) Award Term Evaluation and Determination

(1) The Government may extend the contract term up to a total of twenty years through operation of this award term incentive clause. The evaluation period for the first award term extension will be the first three performance evaluation periods of the initial contract term. Evaluations for subsequent award term extensions will be conducted annually.

(2) The ATDO will unilaterally determine if the contractor: (i) meets eligibility requirements to earn an award term extension; and (ii) has earned additional contract term.

(3) The amount of award term that may be earned by the contractor for the first award term extension is thirty-six (36) months. The amount of award term that may be earned by the contractor for each subsequent award term extension is twelve (12) months.

(4) If the ATDO determines that the contractor has earned additional award term, the Contracting Officer will unilaterally modify the contract to extend the term of the contract.

(5) If the Contractor fails either (i) to earn the first award term extension, or (ii) to earn the award term three (3) times, the contractor becomes ineligible to earn any additional award term extension(s) under the contract.

(d) Conditions.

(1) This clause does not confer any other rights to the Contractor other than the right to earn additional contract term as specified herein. Any additional contract term awarded to the Contractor under this clause is subject to all of the other terms and conditions of this Contract. Should the terms of this clause conflict with the terms of any other clause under this Contract, then this clause shall be subordinate.

(2) The Contractor's earning of an award term extension and the contractor's right to perform an earned award term extension are subject to:

(i) The Government's continuing need for the contract's work;

(ii) The availability of funds; and

(iii) Mutual agreement by the parties to contract modifications that incorporate changes to, or new, DOE policy or contract clauses;

(3) The Government may make unilateral changes to the Performance Evaluation and Measurement Plan (or equivalent document) prior to the start of an award term evaluation period.

(4) The contractor is not entitled to any cancellation charges, termination costs, equitable adjustments, or any other compensation due to the contractor failing to earn or forfeiting award term.

(5) A significant failure of Contractor's management controls as defined in the clause entitled "Management Controls" or a first degree performance failure as defined in the clause entitled "Conditional Payment of Fee, Profit, and Other Incentives" may result in the forfeiture of up to three (3) years of earned award term. This potential forfeiture is in addition to other remedies provided for in the contract.

F.3 - FAR 52.242-15 - STOP WORK ORDER (AUG 1989) - ALTERNATE I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with

its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either --

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if --

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

F.4 - STOP WORK AND SHUTDOWN AUTHORITY

FAR 52.242-15 – Stop Work Order – Alternate I, allows only the Contracting Officer to stop work or shutdown facilities for reasons other than harm or imminent danger to the environment or health and safety of employees and the public.

Due to the immediate need to stop work due to situations where the Contractor's acts or failures to act cause substantial harm or present an imminent danger to the environment or health and safety of employees or the public, any DOE employee may exercise the stop work authority contemplated in DEAR 970.5223-1 – Integration of Environment, Safety, and Health Into Work Planning and Execution.

F.5 - PRINCIPAL PLACE OF PERFORMANCE

The principal place of contract performance is at the site of the Fermi National Accelerator Laboratory, Batavia, Illinois.

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CONTRACT ADMINISTRATION DATA

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SECTION G - CONTRACT ADMINISTRATION DATA

G.1 - DOE CONTRACTING OFFICER

For the definition of Contracting Officer see Federal Acquisition Regulation (FAR) 2.101. The Contracting Officer is the only individual who has the authority on behalf of DOE to take the following actions under the contract:

(1) assign additional work within the general scope of the Statement of Work of the contract;

(2) issue a change as defined in the "Changes" clause of the contract;

(3) change any of the expressed terms, conditions or specifications of the contract;

(4) accept non-conforming work; or

(5) waive any requirement of this contract.

(End of Clause)

G.2 - DOE CONTRACTING OFFICER'S REPRESENTATIVE(S) (COR)

Performance of the work under this contract shall be subject to the technical direction of DOE Contracting Officer's Representative(s) in accordance with Clause I.83 - DEAR 952.242-70 - Technical Direction (DEC 2000). Any change in any DOE COR may be made administratively by letter from the Contracting Officer consistent with Clause I.83 - DEAR 952.242-70 - Technical Direction (DEC 2000).

(End of Clause)

G.3 - CONTRACT ADMINISTRATION

The contract will be administered by:

U.S. Department of Energy
Fermi Site Office
Kirk Road and Pine Street
Batavia, IL 60510

Written communications regarding the contract shall be mailed to the above address except for correspondence regarding patent or intellectual property related matters which should be addressed to:

U.S. Department of Energy
Office of Chief Counsel - Intellectual Property Law Division
ATTN: DOE Patent Counsel
Chicago Office
9800 South Cass Avenue
Argonne, IL 60439

Information copies of patent related correspondence should also be sent to the Contracting Officer.

(End of Clause)

G.4 – COST REPORTING PROCEDURES

The following reporting procedure will apply to submission of monthly cost reports for Recovery Act work specified in the work scope baseline.

(a) The Contractor will separately identify costs that pertain to the Recovery Act work. The Contractor will provide a monthly report that identified the total amount drawn on the letter of credit. The Contractor shall submit a monthly report that separates and identifies Recovery Act costs associated with each appropriation at the Recovery Act program and project levels.

(b) The Contractor shall certify in each monthly report that the costs included in the report for Recovery Act work were incurred only to accomplish the Recovery Act work in accordance with the work scope.

(End of Clause)

G.5 – INDIRECT CHARGES

In accordance with the general principles of the Recovery Act, the Contractor must take the following steps to minimize the impacts of indirect costs and enhance transparency and accountability of projects:

(a) Clearly identify the estimated full cost of projects to include total direct and indirect costs, indirect cost rates, and adjust existing indirect cost rates to account for the material infusion of funds provided in the Recovery Act;

(b) Exempt funds from contract cost base for distributing Laboratory Directed Research and Development or similar funds taxing programs;
(c) Ensure all funds transferred by Fermi Research Alliance, LLC are completed using the Approved Funding Program process described in Chapter 12 of the Accounting Handbook; and
(d) The Federal Administrative Charge (FAC) of three percent shall be waived on reimbursable work funded by the Recovery Act and performed by Departmental Federal offices or Fermi Research Alliance, LLC.
(e) In all cases listed above and otherwise, the Contractor shall develop and maintain prudent management and good business practices regarding their indirect rate structure as it applies to Recovery Act funding.

(End of Clause)

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SPECIAL CONTRACT REQUIREMENTS

CLAUSE H.1 - LABORATORY FACILITIES

Laboratory Facilities. DOE agrees to furnish and make available to the Contractor, for its use in performing the work under this contract, the Laboratory facilities designated as follows:

(a) The Government-owned or leased land, buildings, utilities, equipment and other facilities situated at the Fermi National Accelerator Laboratory Site in DuPage and Kane Counties, Illinois; and

(b) Government-owned or leased facilities at such other locations as may be approved by DOE for use under this contract.

DOE reserves the right to make part of the above-mentioned land or facilities available to other Government agencies or other users on the basis that the responsibilities and undertakings of the Contractor will not be unreasonably interfered with. Before exercising its right to make any part of the land or facilities available to another agency or user, DOE will confer with the Contractor.

Subject to mutual agreement, other facilities may be used in the performance of the work under this contract.

CLAUSE H.2 -LONG-RANGE PLANNING, PROGRAM DEVELOPMENT AND BUDGETARY ADMINISTRATION

(a) Basic considerations. Throughout the process of planning, and budget development and approval, the Parties recognize the desirability for close consultation, for advising each other of plans or developments on which subsequent action will be required, and for attempting to reach mutual understanding in advance of the time that action needs to be taken.

(b) Strategic planning. The Contractor shall develop a Strategic Plan covering a five-year period, which will be updated annually. Development of the Fermilab Strategic Plan is a component of the strategic planning process by which the Parties, through mutual consultation, reach agreement on the general types and levels of activity which will be conducted at the Laboratory for the period covered by the plan. The Fermilab Strategic Plan approved by the DOE Site Office Manager provides guidance to the Contractor for long-range planning of Laboratory programs, site and facility development, and for budget preparation. It also serves as a baseline for placement of work at the Laboratory.

(c) DOE approval. DOE approval of the program proposals and budget estimates will be

reflected in work authorizations and financial plans developed and issued to the Contractor.

CLAUSE H.3 - WORK AUTHORIZATION

(a) Work programs shall be developed by the Contractor and approved by DOE in accordance with applicable DOE directives, and shall constitute work to be performed under this Contract during the pertinent periods involved. Such work programs may include program and project performance objectives and milestones. The Contractor shall consult with DOE, as necessary, during the process of developing work programs. Subject to the other provisions of this contract, changes in the agreed work program, not constituting major changes, may be made by the Contractor when it appears to the Contractor, to be in the best interest of the scientific and technical objectives of the agreed work program to do so. It is understood that the nature of the research and development work under this Contract is of a specialized character not readily reducible to production schedules. In view of these circumstances, it is agreed that the research and development work is performed on a best effort basis.

(b) Due to the critical character of the work from the standpoint of national significance, it is understood by the Parties hereto that very close collaboration will be required between the Contractor and DOE with respect to direction, emphasis, trends and adequacy of the total program.

(c) (1) The annual work program and budget are principal devices used by DOE in program development, integration, execution, and cost estimating. To make the work program and budget most effective in assuring comprehensive coverage of DOE missions, it is the responsibility of DOE to keep the operators of DOE's laboratories continually advised of DOE’s overall program goals, scientific and technological problems, and its current long range objectives. In light of such information, the Contractor will propose possible new objectives and present preliminary work programs in the area of its competence which, from its point of view, will either strengthen the overall DOE program or provide additional support in areas which, in the Contractor's judgment, are being inadequately exploited, or initiate new areas of investigation which appear of potential importance.

(2) It is the responsibility of DOE to formulate overall program budgets, taking into consideration the proposals submitted by the Contractor, consistent with funds appropriated by the Congress and all its other program needs.

(3) The Contractor shall prepare a final work program and budget consistent with DOE’s overall program budget. Upon DOE approval, it is the Contractor's responsibility to conduct its work program within limits established by these approvals unless and until they are modified by DOE.

(d) In accordance with the basic considerations stated in paragraph (c) above, the Contractor

and DOE will utilize the Program Budget procedures on a Government fiscal year basis for the establishment of the Laboratory Program Budget. Procedures for the presentation of work programs and cost estimates shall be jointly developed. In order to meet the requirements of Government budgetary practice, the Parties agree:

(1) As early as possible in each calendar year, DOE shall supply the Contractor with the dollar amounts for the Laboratory contained in the President's Budget, with Program assumptions and guidance which the Contractor will be expected to consider in the development of its program and budget, and with all changes to existing budget and accounting policies and procedures to be used in the current budget preparation.

(2) Prior to April 1 (or such other date as may be agreed upon) the Contractor shall submit to DOE for approval a comprehensive work program for the next two fiscal years, together with a description of the current work program, and the Contractor shall submit a budget estimate for the next two fiscal years, together with a revised budget estimate for the current fiscal year.

(3) As soon as possible after October 1 of each year, DOE shall issue Work Authorizations and an Approved Funding Program to the Contractor for the current fiscal year.

(e) (1) DOE approved work programs, program performance expectations and milestones as appropriate, and budget estimates shall be reflected in Work Authorizations/Annual Program Letters/Activity Data Sheets/Program Baseline Summaries and Approved Funding Programs. These documents will be issued to the Contractor as soon as possible after funds become available. If, in preparing Work Authorizations/Annual Program Letters/Activity Data Sheets/Program Baseline Summaries and Approved Funding Programs, it is determined that changes are needed in the work program and budget estimates submitted by the Contractor, DOE and the Contractor shall agree upon the changes in the work before final issuance of these documents, provided, however, that nothing herein shall preclude DOE from directing a change in the work pursuant to the clause of the Contract entitled “Changes”.

(2) The Work Authorizations/Annual Program Letters, and with respect to work funded by the office of Environmental Management, Program Baseline Summaries and Approved Funding Programs, specify the funds available for work under the Contract for the fiscal year and, in addition, may establish limitations on costs to be incurred for individual portions of the work. The Contractor shall comply with such limitations and shall promptly notify the Contracting Officer, in writing, whenever it becomes apparent that there is likely to be an overrun with respect to any specific limitation in the Work Authorization/Annual Program Letters, and with respect to the work funded by the office of Environmental Management, Program Baseline Summaries, and Approved Funding Programs. Funds made available for work

under the contract, and set forth in Approved Funding Programs or other funding documents, shall not be reduced except by written agreement of the Parties.

(3) Additional programs and projects to be conducted at the Laboratory within the scope of the Contract may be established by agreement between the DOE and the Contractor.

(f) A Contract modification shall be issued to the Contractor on or before September 30 of each year (or such other date as may be agreed upon) to provide additional funds, and further Contract modifications may be issued or entered into from time to time to provide appropriate modifications in the total amount of funds made available under the Contract. DOE agrees to use its best efforts to provide stable funding in support of the Contract work and it is DOE's intention that there shall be so provided at all times sufficient funds to support the work program at the level authorized by DOE.

(g) During the course of the work, DOE shall review the work program and its costs based upon information submitted by the Contractor and may, after consultation with the Contractor, revise the Work Authorizations and Approved Funding Programs established by DOE under paragraph (e) above. The Contractor shall make any necessary revisions to the documents cited in this clause consistent with DOE direction.

(h) It is the intent of the Contractor and DOE to agree from time to time upon long-term work programs covering certain portions of the work to be performed under this contract.

(i) The Contractor shall maintain current cost information adequate to reflect the cost of performing the work under this Contract at all times while the work is in progress, and shall prepare and furnish to the Government such written estimates of cost and information in support thereof as the Contracting Officer may request.

CLAUSE H.4 - ADVANCE UNDERSTANDINGS REGARDING ADDITIONAL ITEMS OF ALLOWABLE AND UNALLOWABLE COSTS AND OTHER MATTERS

Allowable costs under this Contract shall be determined according to the requirements of DEAR 970.5232-2, Payments and Advances. For purposes of effective Contract implementation, certain items of cost are being specifically identified below as allowable and/or unallowable under this Contract to the extent indicated:

I. ITEMS OF ALLOWABLE COSTS:

(a) Personnel costs in accordance with Appendix A attached to this contract.

(b) Costs for the defense and indemnification of employees in accordance with the provisions of Clause H.37.

(c) Rentals and leases of land, buildings, and equipment owned by third parties,

allowances in lieu of rental, charges associated therewith and costs of alteration, remodeling and restorations where such items are used in the performance of the contract, except that such rentals and leases directly chargeable to the contract shall be subject to such approval by the Contracting Officer as set forth in Part III, Attachment J.7, Appendix G.

(d) Notwithstanding the provisions of FAR cost principle 31.205-44 (e), stipends and payments made to reimburse travel or other expenses of researchers and students who are not employed under this contract but are participating in research, educational or training activities under this contract to the extent such costs are incurred in connection with fellowship, international agreements, or other research, educational or training programs approved by the Contracting Officer.

(e) Notwithstanding the provisions of FAR cost principle 31.205-44 (e), payments to educational institutions for tuition and fees, or institutional allowances, in connection with fellowship or other research, educational or training programs for researchers and students who are not employed under this contract.

(f) Costs incurred or expenditures made by the Contractor, as directed, approved or ratified by the Contracting Officer and not unallowable under any other provisions of this contract.

(g) Net costs for the Fermilab swimming pool.

II. ITEMS OF UNALLOWABLE COSTS:

(a) Premium Pay for wearing radiation-measuring devices for Laboratory and all-tier cost-type subcontract employees.

(b) Home office expenses, whether direct or indirect, relating to activities of the Contractor, except as otherwise specifically agreed to in writing by the Contracting Officer.

CLAUSE H.5 - ADMINISTRATION OF SUBCONTRACTS

(a) The administration of all subcontracts entered into and/or managed by the Contractor, including responsibility for payment hereunder, shall remain with the Contractor unless assigned at the direction of DOE.

(b) The DOE reserves the right to direct the Contractor to assign to the DOE, or another Contractor, any subcontract awarded under this contract.

(c) The DOE reserves the right to identify specific work activities in Section C

"Description/Specifications/Work Statement" to be removed (de-scoped) from the contract in order to contract directly for the specific work activities. The Department will work with the Contractor to identify the areas of work that can be performed by small businesses in order to maximize direct federal contracts with small businesses. The Contractor agrees to facilitate these actions. This facilitation will include identifying direct contracting opportunities valued at $5 million or above for small businesses for work presently performed under subcontracts, as well as work performed by Contractor employees. The Contractor shall notify the DOE one year in advance of the expiration of any of its subcontracts valued at $5 million or above, or if applicable, one-year prior to the exercise of an option and/or the option notification requirement, if any, contained in the subcontracts. The DOE will review this information and the requirements of the Contractor to determine the appropriateness for small business opportunities. This review may result in the DOE electing to enter in contracts directly with small businesses for these areas of work. The Contracting Officer will give notice to the Contractor not less than 120 calendar days prior to the date for exercising the option and/or the expiration of the subcontract and/or prior to entering into contract for work being performed by Contractor employees. Following award of these direct federal contracts, DOE may assign administration of these contracts to the Contractor. The Contractor agrees to accept assignments from the DOE for the administration of these contracts. The parameters of the Contractor's responsibilities for the small business contracts and/or changes, if any, to this contract will be incorporated via a modification to the contract. The Contractor will accept management and administration responsibilities, if so determined.

(d) To the extent that DOE removes (de-scopes) work from this contract, any such removed or withdrawn work shall be treated as a change in accordance with the clause of this contract entitled, “Changes”. A “material change” for the purpose of this clause is defined as cumulative changes during a fiscal year that result in a plus or minus 10% change to the fee base contained in Part I, Clause B.3 (e)(2). To the extent that DOE assigns the administration of a contract to the Contractor, or removes (de-scopes) work, the Parties reserve the right to negotiate an equitable adjustment in the Contractor’s annual available performance fee. The negotiation of fee will be in accordance with the contract clause entitled, “Total Available Fee**:** Base Fee Amount and Performance Fee Amount”. The Parties will also negotiate appropriate adjustments to the Contractor’s Subcontracting Plan or any other applicable contract terms and conditions impacted by such withdrawal or addition of work scope to recognize the changes to the Contractor’s subcontracting base and goals.

CLAUSE H.6 - FACILITIES CAPITAL COST OF MONEY

The request for proposal for this contract did not require a cost proposal in which facilities capital cost of money would apply. Therefore, the Clause I.16B, FAR 52.215-17, Waiver of Facilities Capital Cost of Money is included in the contract. However, if during the performance of the contract the Contractor elects to claim facilities capital cost of money as an allowable cost, the Contractor shall submit, for approval of the Contracting Officer, a proposal for each specific

project, including Form CASB-CMF which shows the calculation of the proposed amount (see FAR 31.205-10).

CLAUSE H.7 - PRIVACY ACT RECORDS

In accordance with the Privacy Act of 1974, 5 U.S.C. 552a (Public Law 93-579) and implementing DOE Regulations (10 CFR 1008), the Contractor shall maintain the following "Systems of Records" on individuals in order to accomplish the United States Department of Energy functions:

Personnel Medical Records (DOE-33) (excepting Contractor employees)

Personnel Radiation Exposure Records (DOE-35) (respecting Contractor employees, DOE and, visitors to the Contract Site)

Employee and Visitor Access Control Records (DOE-51)

Access Control Records of International Visits, Assignments, and Employment at DOE Facilities and Contractor Sites (DOE-52)

The parenthetical Department of Energy number designations for each system of records refers to the official "System of Records" number published by the United States Department of Energy in the Federal Register pursuant to the Privacy Act.

If DOE requires the Contractor to design, develop, or maintain additional systems of Government-owned records on individuals to accomplish an agency function in accordance with the Privacy Act of 1974 and 10 CFR 1008, the Contracting Officer, or designee, shall so notify the Contractor, in writing, and such Privacy Act system shall be deemed added to the above list whether incorporated by formal contract modification or not. The Parties shall mutually agree to a schedule for implementation of the Privacy Act with respect to each such system.

CLAUSE H.8 - ADDITIONAL DEFINITIONS

(a) “CH” means the DOE Office of Science, Chicago Office.

(b) “Contractor” means the Offeror as specified in Block 15A of Standard Form 33 for Contract No. DE-AC02-07CH11359.

(c) The term “DOE” means the Department of Energy, “FERC” means the Federal Energy Regulatory Commission, and “NNSA” means the National Nuclear Security Administration.

(d) The term "DOE Directive" means DOE Policies, Orders, Notices, Manuals, Regulations, Technical Standards and related documents, and Guides, including for purposes of this contract those portions of DOE's Accounting and Procedures Handbook applicable to

integrated Contractors, issued by DOE. The term does not include temporary written instructions by the Contracting Officer for the purpose of addressing short-term or urgent DOE concerns relating to health, safety, or the environment.

(e) "Head of Agency" means: (i) The Secretary; (ii) Deputy Secretary; (iii) Under Secretaries of the Department of Energy and (iv) the Chairman, Federal Energy Regulatory Commission.

(f) "Laboratory" means the Fermi National Accelerator Laboratory (FNAL) composed of Government-owned buildings and facilities together with the necessary utilities, now existing or hereafter to be acquired, constructed and equipped, most of which are or will be situated on the Government-owned land (hereinafter referred to as the "Laboratory Site") at Batavia, Kane and DuPage Counties, Illinois.

(g) The term "someone acting as the Laboratory Director" means the person appointed as Laboratory Director; Deputy Laboratory Director(s) acting in the absence of the Laboratory Director; or a person specified, in writing, to have authority to act in the absence of the Laboratory Director and Deputy Laboratory Director(s).

(h) With respect to Clauses H.15, I.110, and I.129, the term "nonprofit Contractor" means –

(1) a university or other institution of higher education,

(2) an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 as amended and exempt from taxation under section 501(a) and the Internal Revenue Code,

(3) any nonprofit scientific or educational organization qualified as a nonprofit by the laws of the State of its organization or incorporation, or

(4) a combination of qualifying entities organized for a nonprofit purpose (e.g., partnership, joint venture or limited liability company) each member of which meets the requirements of (1), (2), or (3) above.

(i) The term "Senior Procurement Executive" means, for DOE:

Department of Energy – Director, Office of Procurement and Assistance Management, DOE;

National Nuclear Security Administration – Administrator for Nuclear Security, NNSA; and

Federal Energy Regulatory Commission – Chairman, FERC.

(j) Reserved.

CLAUSE H.9 - SERVICE CONTRACT ACT OF 1965 (41 U.S.C. 6701)

The Service Contract Act of 1965 is not applicable to this contract. However, in accordance with Clause I.128 – DEAR 970.5244-1 – CONTRACTOR PURCHASING SYSTEM (AUG 2009), subcontracts awarded by the Contractor are subject to the Act to the same extent and under the same conditions as contracts awarded by DOE. The Contractor and the Contracting Officer shall develop a procedure whereby DOE will determine if the Service Contract Act is applicable to particular subcontracts. In cases determined to be covered by the Service Contract Act, the Contractor shall prepare SF-98 and 98A "Notice of Intention to Make a Service Contract" and forward it to the Contracting Officer or his designee to obtain a wage determination.

CLAUSE H.10 - WALSH-HEALY PUBLIC CONTRACTS ACT

Except as otherwise may be approved, in writing, by the Contracting Officer, the Contractor agrees to insert the following provision in noncommercial Purchase Orders and subcontracts under this contract. "If this contract is for the manufacture or furnishing of materials, supplies, articles, or equipment in an amount which exceeds or may exceed $10,000.00 and is otherwise subject to the Walsh-Healy Public Contracts Act, as amended (41 U.S.C. 6501), there are hereby incorporated by reference all representations and stipulations required by said Act and regulations issued thereunder by the Secretary of Labor, such representations and stipulations being subject to all applicable rulings and interpretations of the Secretary of Labor which are now or may hereafter be in effect."

CLAUSE H.11 – ALLOWABLE CONTRACTOR GOVERNANCE AND CONTRACTMONITORING EXPENSES

The allowable costs reimbursed under Clause I.117, Payments and Advances, of this contract shall include costs incurred by the Board of Directors and shall be determined as follows:

Commencing October 1, 2008 the Contractor shall be provided funds each fiscal year to reimburse the allowable costs (which may include such types as staff costs, honoraria and meeting expenses) resulting from the contract management oversight activities of the Board of Directors. Within 150 days after the beginning of each fiscal year, the Contractor shall submit to the Contracting Officer a detailed budget estimate for the allowable costs of such activities for the ensuing year. The amount each year shall be a provisional amount agreed upon by the Parties after review of the annual budget. During each year the Parties may agree upon changes regarding the approved annual budget. Any costs incurred by the Contractor for the Board of Directors in excess of the mutually agreed to provisional amount shall be unallowable unless the Contracting Officer approves such increased amount, in writing. The Contractor shall submit a detailed report of all expenditures as soon as possible but no later than 120 days following the end of each fiscal year. Any amounts received provisionally for the completed year and not so spent shall be refunded to the DOE, or, if the Parties so agree, carried forward as an offset against the provisional allowable costs for the succeeding fiscal year. A certification signed by an individual of the Fermi Research Alliance LLC, at a level no lower than a Vice President or Chief Financial Officer, shall be provided stating that the costs incurred contain no unallowable costs. Appropriate documentation, including a detailed

agenda, list of attendees, topics of discussion, and a Statement indicating that meals provided to the Board of Directors are incidental to and an integral part of the conference or meeting shall be available to DOE and provided in the annual detailed report of expenditures. Actual allowable costs may be charged to the contract as incurred during each fiscal year.

CLAUSE H.12 - RESERVED

CLAUSE H.13 – CONTRACTOR ASSURANCE SYSTEM

(a) The Contractor shall develop a contractor assurance system that is executed by the Contractor's Board of Directors (or equivalent corporate oversight entity) and implemented throughout the Contractor's organization. This system provides reasonable assurance that the objectives of the contractor management systems are being accomplished and that the systems and controls will be effective and efficient. The contractor assurance system, at a minimum, shall include the following key attributes:

(1) A comprehensive description of the assurance system with processes, key activities, and accountabilities clearly identified.

(2) A method for verifying/ensuring effective assurance system processes. Third party audits, peer reviews, independent assessments, and external certification (such as VPP and ISO 9001 or ISO 14001) may be used.

(3) Timely notification to the Contracting Officer of significant assurance system changes prior to the changes.

(4) Rigorous, risk-based, credible self-assessments, and feedback and improvement activities, including utilization of nationally recognized experts, and other independent reviews to assess and improve the Contractor's work process and to carry out independent risk and vulnerability studies.

(5) Identification and correction of negative performance/compliance trends before they become significant issues.

(6) Integration of the assurance system with other management systems including Integrated Safety Management.

(7) Metrics and targets to assess performance, including benchmarking of key functional areas with other DOE contractors, industry and research institutions. Assure development of metrics and targets that result in efficient and cost effective performance.

(8) Continuous feedback and performance improvement.

(9) An implementation plan (if needed) that considers and mitigates risks.

(10) Timely and appropriate communication to the Contracting Officer, including electronic access, of assurance related information.

The initial contractor assurance system description shall be approved by the Contracting Officer.

(b) The Government may revise its level and/or mix of oversight of this contract when the Contracting Officer determines that the assurance system is or is not operating effectively.

CLAUSE H.14 - STANDARDS OF CONTRACTOR PERFORMANCE EVALUATION

(a) Use of objective standards of performance, self assessment and performance evaluation:

(1) The Parties agree that the Contractor will utilize a comprehensive performance-based management approach for overall Laboratory management. The performance-based management approach will include the use of objective performance goals and indicators, agreed to in advance of each performance evaluation period, as standards against which the Contractor's overall performance of the scientific and technical mission obligations under this Contract will be assessed. The performance criteria will be limited in number and focus on results to drive improved performance and increased effective and efficient management of the Laboratory.

(2) The Parties agree to utilize the process described within Part III, Section J, Appendix B - “Performance Evaluation and Measurement Plan" (PEMP) to evaluate the performance of the Laboratory. The Parties further agree that the evaluation process described in Appendix B will be reviewed annually and modified, if necessary, by agreement of the Parties. If agreement of the Parties cannot be reached, the Contracting Officer has the unilateral right to establish the evaluation process.

(3) The Parties agree that the Contractor will conduct an ongoing self-assessment process as the principal means of determining its compliance with the Contract Statement of Work and performance indicators identified within Part III, Section J, Appendix B. To assist the DOE in accomplishing the appropriate level of oversight, the Contractor shall work in partnership and cooperation with DOE and other external organizations, as appropriate, in the self-assessment process. This work includes, but is not limited to, the development and execution of self-assessments and the utilization of the results for continuous improvement.

(4) The Contractor shall provide periodic updates, as requested by the DOE, on the performance against the Appendix B. The Contractor shall provide a formal status

briefing at mid-year and year-end. Specific due dates and formats for the above-mentioned briefings shall be agreed to by the Laboratory Director and the DOE Fermi Site Office Manager.

(5) DOE, as a part of its responsibility for oversight, evaluation, and information exchange, shall provide an annual programmatic appraisal and other appraisals, and reviews of the Contractor's performance of authorized work in accordance with the terms and conditions of this Contract. The Office of Science, through the DOE Fermi Site Office Manager, has the lead responsibility for oversight of the programs and activities conducted by the Contractor.

(6) The Contracting Officer shall annually provide a written assessment of the Laboratory's performance to the Contractor, which shall be based upon the process described in Appendix B. The Parties acknowledge that the performance levels achieved against the specific performance objectives and measures shall be the primary, but not sole, criteria for determining the Contractor's final performance evaluation and rating. The Contractor's self-assessment results, to include results of any third party reviews which may have been conducted during the evaluation period, will be considered at all levels to assess and evaluate the Contractor's performance. The Contracting Officer may also consider other relevant information not specifically measured by the objectives and measures established within Appendix B that is deemed to have an impact (either positive or negative) on the Contractor's performance. Other relevant information that may be used by the Contracting Officer may include, but is not limited to, information gained from peer reviews, operational awareness, outside agency reviews (i.e., OIG, GAO, DCAA, etc.) conducted throughout the year, annual reviews (if needed), and DOE "for cause" reviews. Contractor success in meeting or exceeding performance expectations in a particular management or operations functional area may be rewarded with less frequent or no review of the functional area. Conversely, marginal performance or "for cause" situations may result in more frequent reviews.

(b) Standards of performance measure review:

(1) The Parties agree to review the PEMP elements (goals, objectives, measures, targets, and expected levels of performance) contained in Appendix B annually and to modify them upon the agreement of the Parties; provided, however, that if the Parties cannot reach agreement on all the goals, objectives, measures and targets, for the next period, the Contracting Officer shall have the unilateral right to establish reasonable new goals, objectives, measures and targets, and/or to modify and/or delete existing goals, objectives, measures and targets. It is expected that the goals, objectives, measures and targets, will be modified by the Contractor and the DOE as new areas of emphasis or priorities emerge which the Parties may agree warrant recognition in the performance-based integrated management approach.

(2) Failure to include a goal, objective, measure or target in the contract Appendix B does not eliminate the Contractor's obligation to comply with all applicable terms and conditions as set forth elsewhere within the contract.

(3) In the event the Contracting Officer decides to exercise the rights set forth in paragraphs (a)(6) or (b)(1) above, he/she will notify the Contractor, in writing, of the intended decision ten days prior to issuance.

CLAUSE H.15 - CAP ON LIABILITY

(a) The Parties have agreed that the Contractor's liability, for certain obligations it has assumed under this contract, shall be limited as set forth in paragraph (b) below. These limitations or caps shall only apply to obligations the Contractor has assumed pursuant to the following clauses:

(1) The clause titled "Property", paragraph (f)(1)(i)(C);

(2) The clause titled "Insurance--Litigation and Claims", (h), with respect to prudent business judgment only; and

(3) The clause titled "Insurance--Litigation and Claims", (j)(2), except for punitive damages resulting from the willful misconduct or lack of good faith on the part of the Contractor's managerial personnel as defined in the clause titled, Property.

(b) The Contractor shall be liable each fiscal year for an amount not-to-exceed 1.25 times the maximum performance fee available for that fiscal year. The annual cap which will apply shall be based on the fiscal year in which the Contractor's act or failure to act was the proximate cause of the liability assumed by the Contractor. In the event the Contractor's act or failure to act overlaps more than one fiscal year, the limitation will be the annual limitation for the last fiscal year in which the Contractor's act or failure to act occurred. If the Contractor's cumulative obligations for a fiscal year equal the amount of the annual limitation of liability, the Contractor shall have no further responsibility for the costs of the liabilities it has assumed for that fiscal year pursuant to (a)(1) through (3) above.

CLAUSE H.16 - INTELLECTUAL AND SCIENTIFIC FREEDOM

(a) The Parties recognize the importance of fostering an atmosphere at the Laboratory conducive to scientific inquiry and the development of new knowledge and creative and innovative ideas related to important national interests.

(b) The Parties further recognize that the free exchange of ideas among scientists and engineers at the Laboratory and colleagues at universities, colleges, and other laboratories or scientific facilities is vital to the success of the scientific, engineering, and technical work performed by Laboratory personnel.

(c) In order to further the goals of the Laboratory and the national interest, it is agreed by the Parties that the scientific and engineering personnel at the Laboratory shall be accorded the rights of publication or other dissemination of research, and participation in open debate and in scientific, educational, or professional meetings or conferences, subject to the limitations included in technology transfer agreements and such other limitations as may be required by the terms of this Contract. Nothing in this clause is intended to alter the obligations of the Parties to protect classified or unclassified controlled nuclear information as provided by law.

(d) Nothing in the Section I clause entitled "Public Affairs" or the Section H clause(s) respecting "Lobbying Restriction (Energy and Water Act)" are intended to limit the rights of the Contractor or its employees to publicize and to accurately state the results of its scientific research.

CLAUSE H.17 - NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS - SENSE OF CONGRESS

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

CLAUSE H.18 - APPLICATION OF DOE CONTRACTOR REQUIREMENTS DOCUMENTS

(a) Performance. The Contractor will perform the work of this Contract in accordance with each of the Contractor Requirements Documents (CRDs) appended to this contract as "Appendix I," until such time as the Contracting Officer approves the substitution of an alternative procedure, standard, system of oversight, or assessment mechanism resulting from the process described below.

(b) Laws and Regulations Excepted. The process described in this clause shall not affect the application of otherwise applicable laws and regulations of the United States, including regulations of the Department of Energy.

(c) Deviation Processes in Existing Orders. This clause does not preclude the use of deviation processes provided for in existing DOE directives.

(d) Proposal of Alternative. The Laboratory Director may, at any time during performance of this contract, propose an alternative procedure, standard, system of oversight, or assessment mechanism to the requirements in a listed CRD by submitting to the Contracting Officer a signed proposal describing the nature and scope of the alternative procedure, standard, system of oversight, or assessment mechanism (alternative), the anticipated benefits, including any cost benefits, to be realized by the Contractor in performance under the contract, and a schedule for implementation of the alternate. In addition, the Contractor

shall include an assurance signed by the Laboratory Director that the revised alternative is an adequate and efficient means to meet the objectives underlying the CRD. Upon request, the Contractor shall promptly provide the Contracting Officer any additional information that will aid in evaluating the Contractor's proposal.

(e) Action of the Contracting Officer. The Contracting Officer shall within sixty (60) days:

(1) deny application of the proposed alternative;

(2) approve the proposed alternative, with conditions or revisions;

(3) approve the proposed alternative; or

(4) provide a date by which a decision will be made (not to exceed an additional 60 days).

(f) Implementation and Evaluation of Performance. Upon approval in accordance with (e)(2) or (e)(3) above, the Contractor shall implement the alternative. In the case of a conditional approval under (e)(2) above, the Contractor shall provide the Contracting Officer with an assurance statement, signed by the Laboratory Director, that the revised alternative is an adequate and efficient means to meet the objectives underlying the CRD. Additionally, the statement shall describe any changes to the schedule for implementation. The Contractor shall then implement the revised alternative. DOE will evaluate performance of the approved alternative from the date scheduled by the Contractor for implementation.

(g) Application of Additional or Modified CRDs. During performance of the contract, the Contracting Officer may notify the Contractor that he or she intends to unilaterally add CRDs not then listed in Appendix I or modifications to listed CRDs. Upon receipt of that notice, the Contractor, within thirty (30) calendar days, may, in accordance with paragraph (d) of this clause, propose an alternative procedure, standard, system of oversight, or assessment mechanism. The resolution of such a proposal shall be in accordance with the process set out in paragraphs (e) and (f) of this clause. If an alternative proposal is not submitted by the Contractor within the thirty (30) calendar day period, or, if made, is denied by the Contracting Officer under paragraph (e), the Contracting Officer may unilaterally add the CRD or modification to Appendix I. The Contractor and the Contractor Officer shall identify and, if appropriate, agree to any changes to other contract terms and conditions, including cost and schedule, resulting from the addition of the CRD or modification.

(h) Deficiency and Remedial Action. If, during performance of this contract, the Contracting Officer determines that an alternative procedure, standard, system of oversight, or assessment mechanism adopted through the operation of this clause is not satisfactory, the Contracting Officer may, in his or her sole discretion, determine that corrective action is necessary and require the Contractor to prepare a corrective action plan for the Contracting Officer's approval. If the Contracting Officer is not satisfied with the corrective action

taken, the Contracting Officer may direct corrective action to remedy the deficiency, including, if appropriate, the reinstatement of the CRD.

CLAUSE H.19 - EXTERNAL REGULATION

The Parties commit to full cooperation with regard to complying with any statutory mandate regarding external regulation of Laboratory facilities, whether by the Nuclear Regulatory Commission, the Occupational Safety and Health Administration, the Environmental Protection Agency, and/or State and local entities with regulatory oversight authority, and including but not limited to the conduct of pilot programs simulating external regulation, and the application for materials, facilities, or other licenses by or on behalf of the DOE.

CLAUSE H.20 - SEPARATE CORPORATE ENTITY AND PERFORMANCE GUARANTEE

(a) The work performed under this Contract by the Contractor shall be conducted by a separate corporate entity from its parent organization(s). The separate corporate entity must be set up solely to perform this Contract and shall be totally responsible for all Contract activities.

(b) The Contractor's parent organization(s) or all member organizations, shall guarantee the Contractor's performance as evidenced by the Performance Guarantee(s) incorporated in the contract in Section J, Appendix L. If the Contractor is a joint venture, limited liability company, or other similar entity where more than one organization is involved, the parent or all member organizations shall assume joint and several liability for the performance of the contract.

(c) In the event any of the signatories to the performance guarantee enters into proceedings related to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Contracting Officer.

CLAUSE H.21 - EMPLOYEE COMPENSATION: PAY AND BENEFITS

(a) Total Compensation System

The Contractor shall develop, implement and maintain formal policies, practices and procedures to be used in the administration of its compensation system consistent with FAR 31.205-6 and DEAR 970.3102-05-6; "Compensation for Personal Services" ("Total Compensation System"). DOE-approved standards, if any, shall be applied to the Total Compensation System. The Contractor's Total Compensation System shall be fully documented, consistently applied, and acceptable to the Contracting Officer. Periodic appraisals of contractor performance with respect to the Contractors' Total Compensation System will be conducted.

(1) The description of the Contractor Employee Compensation Program should include the following components;

a. Philosophy and strategy for all pay delivery programs.
b. System for establishing a job worth hierarchy.
c. Method for relating internal job worth hierarchy to external market.
d. System that links individual and/or group performance to compensation decisions.
e. Method for planning and monitoring the expenditure of funds.
f. Method for ensuring compliance with applicable laws and regulations.
g. System for communicating the programs to employees.
h. System for internal controls and self-assessment.
i. System to ensure that reimbursement of compensation, including stipends, for employees who are on joint appointments with a parent or other organization shall be on a pro-rated basis.

b) Reports and Information

The Contractor shall provide the Contracting Officer with the following reports and information with respect to pay and benefits provided under this Contract:

(1) An Annual Contractor Salary-Wage Increase Expenditure Report to include, at a minimum, breakouts for merit, promotion, variable pay, special adjustments, and structure movements for each pay structure showing actual against approved amounts.

(2) A list of the top five most highly compensated executives as defined in FAR 31.205-6(p)(2)(ii) and their total cash compensation at the time of Contract award, and at the time of any subsequent change to their total cash compensation. This should be the same information provided to the System for Award Management (SAM) per FAR 52.204-10.

(3) The Compensation and Benefits Report no later than March 1 of each year.

(c) Pay and Benefit Programs

The Contractor shall maintain pay and benefit programs for its Employees; provided, however, that employees scheduled to work fewer than 20 hours per week receive only those benefits required by law. Employees are eligible for benefits, subject to the terms, conditions, and limitations of each benefit program.

(1) Cash Compensation

(A) The Contractor shall submit the following to the Contracting Officer for a determination of cost allowability for reimbursement under the Contract:

(i) Any proposed major compensation program design changes prior to implementation.

(ii) An Annual Compensation Increase Plan (CIP). The Compensation Increase Plan (CIP) for a Contractor that has received Contracting Officer approval for having an Employee Compensation Program with the components identified under (a)(1) above should include the following components and data:

(1) Market analysis summary, including a comparison of average pay to market average pay.

(2) Merit Fund requests for each Employee Group (i.e., S&E, Administrative, Technical, Exempt/Non-Exempt)

(3) Aging factors used for escalating survey data

(4) Projection of escalation in the market

(5) Information to support proposed structure adjustments, if any.

(6) Analysis to support special adjustments or promotions that exceed the 1% Promotion/Adjustment fund authorized under Section III (c) (4) of Appendix A.

(7) Discussion of recruitment/retention issues (e.g., turnover and hiring) relevant to the proposed increase amounts

(8) A discussion of the impact of budget and business constraints on the CIP amount.

(9) Information to support a request for variable pay authorization.

(10) (a) Reimbursed salary levels are used to establish the annual CIP fund.

(b) The proposed plan totals shall be expressed as a percentage of the payroll for the end of the previous plan year.

(c) All pay actions granted under the compensation increase plan are fully charged when they occur regardless of time of year in which the action transpires and whether the employee terminates before year end.

(d) Specific Employee or Payroll groups (e.g., exempt, nonexempt) for which CIP amounts are intended shall be defined

by mutual agreement between the contractor and the Contracting Officer.

(e) The Contracting Officer may adjust the CIP amount after approval based on major changes in factors that significantly affect the plan amount (for example, in the event of a major reduction in force or significant ramp-up).

(f) The Contractor may make minor shifts of merit funds between employment categories (e.g., Scientist/Engineer, Admin, Exempt, Non-Exempt) after approval of the CIP in order to meet the compensation requirements of its organization, subject to the following guidelines:

- Minor shift is defined as up to 10% of the approved merit funds from one employment category to another (e.g, 10% of Admin merit funds shifted to Technician employment category)
- Total merit increase expenditures will be limited to the total merit fund approved.
- Contractors will notify the Contracting Officer that funds have been shifted.

(iii) Individual compensation actions for the top contractor official (e.g., laboratory director/plant manager or equivalent) and key personnel not included in the CIP. For those key personnel included in the CIP, DOE will approve salaries upon the initial contract award and when key personnel are replaced during the life of the contract. DOE will have access to all individual salary reimbursements. This access is provided for transparency; DOE will not approve individual salary actions (except as previously indicated).

(B) The Contracting Officer's approval of individual compensation actions will be required only for the top contractor official (e.g., laboratory director/plant manager or equivalent) and key personnel as indicated in (c)(1)(A)(iii) above. The Contractor shall not be reimbursed for the top contractor official's incentive compensation. The base salary reimbursement level for the top contractor official establishes the maximum allowable salary reimbursement under the contract when compared to subordinate compensation, which would include base salary and any potential incentive compensation under an incentive compensation agreement. Unusual circumstances may require a deviation for an individual on a case-by-case basis. Any such deviations must be approved by the Contracting Officer.

(C) Severance Pay is not payable to an employee under this Contract if the employee:

(i) Voluntarily separates, resigns or retires from employment, (unless associated with a workforce restructuring action in accordance with Appendix A,

Section XII, Reductions in Contractor Employment)

(ii) Is offered employment with a successor/replacement contractor,

(iii) Is offered employment with a parent or affiliated company, or

(iv) Is discharged for cause.

(D) Service Credit for purposes of determining severance pay does not include any period of prior service for which severance pay has been previously paid through a DOE cost-reimbursement contract.

(d) Pension and Other Benefit Programs

(1) No presumption of allowability will exist when the Contractor implements a new benefit plan or makes changes to existing benefit plans for Employees or until the Contracting Officer makes a determination of cost allowability for reimbursement for new or changed benefit plans.

(2) Cost reimbursement for Employee pension and other benefit programs sponsored by the Contractor will be based on the Contracting Officer's approval of Contractor actions pursuant to an approved "Employee Benefits Value Study" and an "Employee Benefits Cost Survey Comparison" as described below.

(3) Unless otherwise stated, or as directed by the Contracting Officer, the Contractor shall submit the studies required in paragraphs (A) and (B) below. The studies shall be used by the Contractor in calculating the cost of benefits under existing benefit plans. An Employee Benefits Value (Ben-Val) Study Method using no less than 15 comparator organizations and an Employee Benefits Cost Survey comparison Method shall be used in this evaluation to establish an appropriate comparison method. In addition, the Contractor shall submit updated studies to the Contracting Officer for approval prior to the adoption of any change to a pension or other benefit plan.

(A) The Ben-Val, every two years for each benefit tier (e.g., group of employees receiving a benefit package based on date of hire), which is an actuarial study of the relative value (RV) of the benefits programs offered by the Contractor to Employees measured against the RV of benefit programs offered by comparator companies approved by the Contracting Officer. To the extent that the value studies do not address post retirement benefits other than pensions, the Contractor shall provide a separate cost and plan design data comparison for the post retirement benefits other than pensions using external benchmarks derived from nationally recognized and Contracting Officer approved survey sources and,

(B) An Employee Benefits Cost Study Comparison, annually for each benefit tier that analyzes the Contractor's employee benefits cost for Employees on a per capita basis per full time equivalent employee and as a percent of payroll and compares it with the cost reported by the U.S. Department of Labor's Bureau of Labor Statistics or other Contracting Officer approved broad based national survey.

(4) When the net benefit value exceeds the comparator group by more than five percent, the Contractor shall submit a corrective action plan to the Contracting Officer for approval, unless waived in writing by the Contracting Officer.

(5) When the average total benefit per capita cost or total benefit cost as a percent of payroll exceeds the comparator group by more than five percent, the Contractor shall submit an analysis of the specific plan costs that are above the per capita cost range or total benefit cost as a percent of payroll and a corrective action plan to achieve conformance with a Contracting Officer directed per capita cost range or total benefit cost as a percent of payroll, unless waived in writing by the Contracting Officer.

(6) Within two years of Contracting Officer approval of the Contractor's corrective action plan, the Contractor shall align employee benefit programs with the benefit value and per capita cost range or percent of payroll as approved by the Contracting Officer.

(7) The Contractor may not terminate any benefit plan during the term of the Contract without the prior approval of the Contracting Officer in writing.

(8) Cost reimbursement for post-retirement benefits other than pensions (PRBs) is contingent on DOE approved service eligibility requirements for PRB that shall be based on a minimum period of continuous employment service not less than 5 years under a DOE cost reimbursement contract(s) immediately prior to retirement. Unless required by Federal or State law, advance funding of PRBs is not allowable.

(9) Each contractor sponsoring a Defined Benefit pension plan and/or postretirement benefit plan will participate in the annual plan management process which includes written responses to a questionnaire regarding plan management, providing forecasted estimates of future reimbursements in connection with the plan and participating in a conference call to discuss the contractor submission.

(10) Each contractor will respond to quarterly data calls issued through ibenefits, or its successor system.

(e) Establishment and Maintenance of Pension Plans for which DOE Reimburses Costs

(1) Employees working for the Contractor shall only accrue credit for service under this Contract after the date of Contract award.

(2) Except for Commingled Plans in existence as of the effective date of the contract, any pension plan maintained by the Contractor for which DOE reimburses costs, shall be maintained as a separate pension plan distinct from any other pension plan that provides credit for service not performed under a DOE cost-reimbursement contract. When deemed appropriate by the Contracting Officer, Commingled Plans shall be converted to separate plans at the time of new contract award or the extension of a contract.

(f) Basic Requirements

The Contractor shall adhere to the requirements set forth below in the establishment and administration of pension plans that are reimbursed by DOE pursuant to cost reimbursement contracts for management and operation of DOE facilities and pursuant to other cost reimbursement facilities contracts. Pension Plans include Defined Benefit and Defined Contribution plans.

(1) The Contractor shall become a sponsor of the existing pension and other benefit plans (or comparable successor plans), including other post-retirement benefit (PRB) plans, as applicable, with responsibility for management and administration of the plans. The Contractor shall be responsible for maintaining the qualified status of those plans consistent with the requirements of ERISA and the Internal Revenue Code (IRC). The Contractor shall carry over the length of service credit and leave balances accrued as of the date of the Contractor's assumption of Contract performance.

(2) DOE approval is required prior to implementing any change to a pension plan covering prime cost reimbursement contracts for management and operation of DOE facilities and other contracts when designated. Changes shall be in accordance with and pursuant to the terms and conditions of the contract.

(3) Each contractor pension plan shall be subjected to a limited-scope audit annually that satisfies the requirements of ERISA section 103, except that every third year the contractor must conduct a full-scope audit satisfying ERISA section 103. Alternatively, the contractor may conduct a full-scope audit satisfying ERISA section 103 annually. In all cases, the Contractor must submit the audit results

to the contracting officer. In years in which a limited scope audit is conducted, the contractor must provide the contracting officer with a copy of the qualified trustee or custodian's certification regarding the investment information that provides the basis for the plan sponsor to satisfy reporting requirements under ERISA section 104.

(4) The Contractor shall comply with the requirements of ERISA if applicable to the pension plan and any other applicable laws.

(g) Reporting Requirements for Designated Contracts

The following reports shall be submitted to DOE as soon as possible after the last day of the plan year by the contractor responsible for each designated pension plan funded by DOE but no later than the dates specified below:

(1) Actuarial Valuation Reports. The annual actuarial valuation report for each DOE-reimbursed pension plan and when a pension plan is commingled, the contractor shall submit separate reports for DOE's portion and the plan total by the due date for filing IRS Form 5500.

(2) Forms 5500. Copies of IRS Forms 5500 with Schedules for each DOE-funded pension plan, no later than that submitted to the IRS.

(3) Forms 5300. Copies of all forms in the 5300 series submitted to the IRS that document the establishment, amendment, termination, spin-off, or merger of a plan submitted to the IRS.

(h) Changes to Pension Plans

At least sixty (60) days prior to the adoption of any changes to a pension plan, the Contractor shall submit the information required below, as applicable, to the Contracting Officer for approval or disapproval and a determination as to whether the costs are deemed allowable pursuant to FAR 31.205-6, as supplemented by DEAR 970.3102-05-6.

(1) For proposed changes to pension plans and pension plan funding, the Contractor shall provide the following to the Contracting Officer:

(A) a copy of the current plan document (as conformed to show all prior plan amendments), with the proposed new amendment indicated in redline/strikeout;
(B) except in circumstances where the Contracting Officer indicates that it is unnecessary, a legal explanation of the proposed changes from the counsel

used by the plan for purposes of compliance with all legal requirements applicable to private sector defined benefit pension plans;

(C) the Summary Plan Description; and,

(D) any such additional information as requested by the Contracting Officer.

(2) Contractors shall submit new benefit plans and changes to plan design or funding methodology with justification to the Contracting Officer for approval. The justification must:

(A) demonstrate the effect of the plan changes on the contract net benefit value or per capita benefit costs,

(B) provide the dollar estimate of savings or costs, and

(C) provide the basis of determining the estimated savings or cost.

(i) Terminating Plans

(1) DOE contractors shall not terminate any pension plan (Commingled or site specific) without requesting Departmental approval at least 60 days prior to the scheduled date of plan termination.

(j) Special Programs

Contractors must advise DOE and receive prior approval for each early-out program, window benefit, disability program, plan-loan feature, employee contribution refund, asset reversion, or incidental benefit.

(k) Definitions

(1) Commingled Plans. Cover employees from the contractor's private operations and its DOE contract work.

(2) Current Liability. The sum of all plan liabilities to employees and their beneficiaries. Current liability includes only benefits accrued to the date of valuation. This liability is commonly expressed as a present value.

(3) Defined Benefit Pension Plan. Provides a specific benefit at retirement that is determined pursuant to the formula in the pension plan document.

(4) Defined Contribution Pension Plan. Provides benefits to each participant based on the amount held in the participant’s account. Funds in the account may be comprised of employer contributions, employee contributions, investment

returns on behalf of that plan participant and/or other amounts credited to the participant's account.

(5) Pension Fund. The portfolio of investments and cash provided by employer and employee contributions and investment returns. A pension fund exists to defray pension plan benefit outlays and (at the option of the plan sponsor) the administrative expenses of the plan.

(6) Separate Plan. Must satisfy IRC Sec. 414(l) definition of a single plan, designate assets for the exclusive benefit of employees under DOE contract, exist under a separate plan document (having its own DOL plan number) that is distinct from corporate plan documents and identify the contractor as the plan sponsor.

CLAUSE H.21A-LABOR RELATIONS

(a) The Contractor shall respect the right of employees to organize and to form, join, or assist labor organizations, to bargain collectively through their chosen labor representatives, to engage in other concerted activities for the purpose of collective bargaining or other mutual aid or protection, and to refrain from any or all of these activities.

(b) The Contractor shall meet with the Contracting Officer or designee(s) for the purpose of reviewing the Contractor's bargaining objectives prior to negotiations of any collective bargaining agreement or revision thereto and shall consult with and obtain the approval of the Contracting Officer regarding appropriate economic bargaining parameters, including those for pension and medical benefit costs, prior to the Contractor entering into the collective bargaining process. During the collective bargaining process, the Contractor shall notify the Contracting Officer before submitting or agreeing to any collective bargaining proposal which can be calculated to affect allowable costs under this Contract or which could involve other items of special interest to the Government. During the collective bargaining process, the Contractor shall obtain the approval of the Contracting Officer before proposing or agreeing to changes in any pension or other benefit plans.

(c) The Contractor will seek to maintain harmonious bargaining relationships that reflect a judicious expenditure of public funds, equitable resolution of disputes and effective and efficient bargaining relationships consistent with the requirements of FAR, Subpart 22.1 and DEAR, Subpart 970.2201 and all applicable Federal and State Labor Relations laws.

(d) The Contractor will notify the Contracting Officer or designee in a timely fashion of all labor relations issues and matters of local interest including organizing initiatives, unfair labor practice, work stoppages, picketing, labor arbitrations, and settlement

agreements and will furnish such additional information as may be required from time to time by the Contracting Officer.

(e) The Contractor shall provide copies of collective bargaining agreements to the Contracting Officer as they are ratified or modified

CLAUSE H.21B - RESPONSIBLE CORPORATE OFFICIAL

The Government may contact as necessary, the Chairman of the Parent Organization(s) Board of Directors, Trustees or any other Management Board regarding Contractor performance issues.

For each such official, the Contractor shall provide the following information:

Name:	Robert J. Zimmer
Position:	President
Organization:	University of Chicago
Address:	5801 S. Ellis Avenue, Chicago, IL 60637
Phone Number:	(773) 702-8001

Should a responsible corporate official change during the period of the contract, the Contractor shall promptly notify the Government, in writing, of the change in the individual(s) to contact.

CLAUSE H.21C - POST CONTRACT RESPONSIBILITIES FOR PENSION AND OTHER BENEFIT PLANS

(a) If this Contract expires or terminates and DOE has awarded a contract under which the new contractor becomes a sponsor and assumes responsibility for management and administration of the pension or other benefit plans covering active or retired contractor employees with respect to service at Fermi National Accelerator Laboratory (collectively, the "Plans"), the Contractor shall cooperate and transfer to the new contractor its responsibility for sponsorship, management and administration of the Plans consistent with direction from the Contracting Officer. If a Commingled plan is involved, the contractor shall:

(1) spin off the DOE portion of any Commingled Plan used to cover employees working at the DOE facility into a separate plan. The new plan will normally provide benefits similar to those provided by the commingled plan and shall carry with it the DOE assets on an accrual basis market value, including DOE assets that have accrued in excess of DOE liabilities.

(2) bargain in good faith with DOE or the successor contractor to determine the assumptions and methods for establishing the liabilities involved in a spinoff. DOE and the contractor(s) shall establish an effective date of spinoff. On or before the same day as the contractor notifies the IRS of the spinoff or plan

termination, all plan assets assigned to a spun-off or terminating plan shall be placed in a low-risk liability matching portfolio until the successor trustee, or an insurance company, is able to assume stewardship of those assets.

(b) If this Contract expires or terminates and DOE has not awarded a contract to a new contractor under which the new contractor becomes a sponsor and assumes responsibility for management and administration of the Plans, or if the Contracting Officer determines that the scope of work under the Contract has been completed (any one such event may be deemed by the Contracting Officer to be "Contract Completion" for purposes of this clause), whichever is earlier, and notwithstanding any other obligations and requirements concerning expiration or termination under any other clause of this Contract, the following actions shall occur regarding the Contractor's obligations regarding the Plans at the time of Contract Completion:

(1) Subject to subparagraph (2) below, and notwithstanding any legal obligations independent of the Contract the Contractor may have regarding responsibilities for sponsorship, management, and administration of the Plans, the Contractor shall remain the sponsor of the Plans, in accordance with applicable legal requirements.

(2) The parties shall exercise their best efforts to reach agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion. However, if the parties have not reached agreement on the Contractor's responsibilities for sponsorship, management and administration of the Plans prior to or at the time of Contract Completion, unless and until such agreement is reached, the Contractor shall comply with written direction from the Contracting Officer regarding the Contractor's responsibilities for continued provision of pension and welfare benefits under the Plans, including but not limited to continued sponsorship of the Plans, in accordance with applicable legal requirements. To the extent that the Contractor incurs costs in implementing direction from the Contracting Officer, the Contractor's costs will be reimbursed pursuant to applicable Contract provisions.

(End of clause)

CLAUSE H.22 - CONTRACTOR ACCEPTANCE OF NOTICES OF VIOLATIONS OR ALLEGED VIOLATIONS, FINES, AND PENALTIES

(a) The Contractor shall accept, in its own name, service of notices of violations or alleged violations (NOVs/NOAVs) issued by Federal or State regulators to the Contractor resulting from the Contractor's performance of work under this contract, without regard to liability. The allowability of the costs associated with fines and penalties shall be subject to the other provisions of this contract.

(b) The Contractor shall notify DOE promptly when it receives service from the regulators of NOVs/NOAVs and fines and penalties.

CLAUSE H.23 - ALLOCATION OF RESPONSIBILITIES FOR CONTRACTOR ENVIRONMENTAL COMPLIANCE ACTIVITIES

(a) The Parties commit to full cooperation with regard to acquiring any necessary permits or licenses required by environmental, safety and health (ES&H) laws, codes, ordinances, and regulations of the United States, states or territories, municipalities or other political subdivisions, and which are applicable to the performance of work under this contract. It is recognized that certain ES&H permits will be obtained jointly as co-permittees, and other permits will be obtained by either party as the sole permittee. The Contractor, unless otherwise directed by the Contracting Officer, shall procure all necessary non-ES&H permits or licenses.

(b) This clause allocates the responsibilities of DOE and the Contractor, referred to collectively as the "Parties", for implementing the environmental requirements at facilities within the scope of the contract. In this Clause, the term "environmental requirements" means requirements imposed by applicable Federal, State, and local environmental laws and regulations, including, without limitation, statutes, ordinances, regulations, court orders, consent decrees, administrative orders, compliance agreements, permits, and licenses.

(c) (i) Liability and responsibility for civil fines or penalties arising from or related to violations of environmental requirements shall be borne by the party causing the violation irrespective of the fact that the cognizant regulatory authority may assess any such fine or penalty upon either party or both Parties without regard to the allocation of responsibility or liability under this contract. This contractual allocation of liability for any such fine or penalty is effective regardless of which party signs permit applications, manifests, reports, or other required documents, is a permittee, or is the named subject of an enforcement action or assessment of a fine or penalty. The allowability of the costs associated with fines and penalties assessed against the Contractor shall be subject to the other provisions of this contract.

(i) In the event that the Contractor is deemed to be the primary party causing the violation, and the costs of fines and penalties proposed by the regulatory agency to be assessed against the Government (or the Government and Contractor jointly) are determined by the Government to be presumptively unallowable if allocated against the Contractor, then the Contractor shall be afforded the opportunity to participate in negotiations to settle or mitigate the penalties with the regulatory authority. If the Contractor is the sole party of the enforcement action, the Contractor shall take the lead role in the negotiations and the Government shall participate and have final authority to approve or reject any settlement involving costs charged to the contract.

(d) DOE agrees that if bonds, insurance, or administrative fees are required as a condition for permits obtained by the Contractor under this contract, and the Contractor has been directed by the Contracting Officer to obtain such permits after the Contractor has notified the Contracting Officer of the costs of complying with such conditions, such costs shall be allowable. In the event such costs are determined by DOE to be excessive or unreasonable, DOE shall provide the regulatory agency with the acceptable form of financial responsibility. Under no circumstances shall the Contractor be required to provide any corporate resources or corporate guarantees to satisfy such regulatory requirements.

CLAUSE H.24 - WORKERS' COMPENSATION

(a) Contractors, other than those whose workers' compensation coverage is provided through a state funded arrangement or a corporate benefits program, shall submit to the Contracting Officer for approval all new compensation policies and all initial proposals for self-insurance (contractors shall provide copies to the Contracting Officer of all renewal policies for workers compensation).

(b) Workers compensation loss income benefit payments, when supplemented by other programs (such as salary continuation, short-term disability) are to be administered so that total benefit payments from all sources shall not exceed 100 percent of the employee's net pay.

(c) Contractors approve all workers compensation settlement claims up to $100,000. Settlement claims above the $100,000 require Contracting Officer approval.

(d) The Contractor shall obtain approval from the Contracting Officer before making any significant change to its workers compensation coverage and shall furnish reports as may be required from time to time by the Contracting Officer.

CLAUSE H.25 - RESERVED

CLAUSE H.26 - ADDITIONAL LABOR REQUIREMENTS

The Contractor shall conduct payroll and job-site audits and conduct investigations of complaints as authorized by DOE on all Davis Bacon activity, including any subcontracts, as may be necessary to determine compliance with the Davis-Bacon Act. Where violations are found, the Contractor shall report them to the DOE Contracting Officer. The Contracting Officer may require that the Contractor assist in the determination of the amount of restitution and withholding of funds from a subcontractor so that sufficient funds are withheld to provide restitution for back wages due for workers inappropriately classified and paid, fringe benefits owed, overtime payments due, and liquidated damages assessed.

The Contractor shall notify the Contracting Officer of any complaints and significant labor

standards violations whether caused by the Contractor or subcontractors. The Contractor shall assist DOE and/or the Department of Labor in the investigation of any alleged violations or disputes involving labor standards. The Contractor shall furnish a Davis-Bacon Semi-Annual Enforcement Report to DOE by April 21 and October 21 each year.

CLAUSE H.27 - RESERVED

CLAUSE H.28 - RESERVED

CLAUSE H.29 - PERFORMANCE BASED MANAGEMENT AND OVERSIGHT

(a) Performance-based management shall be the key enabling mechanism for establishing the DOE-Contractor expectations on oversight and accountability. DOE expectations (outside of individual program performance and requirements of laws and regulations) and performance targets shall be established through the Performance Evaluation and Measurement Plan (PEMP) pursuant to the clause entitled "Standards of Contractor Performance Evaluation". This PEMP shall establish the expected strategic results in the areas of mission accomplishment, stewardship and operational excellence. Mission performance goals shall be established by agreement with each major customer of the Laboratory, and customer evaluation will be the primary means of evaluating mission performance. Stewardship and operational goals shall be established by agreement with DOE. Contractor self-assessment, third party certification, and Contractor and DOE independent oversight, as appropriate, shall be the primary means for assessing stewardship and operational performance. Routine DOE oversight of Contractor performance will be conducted at the systems level.

(b) The performance-based management system shall be the primary vehicle for addressing issues associated with performance expectations. In the event of a substantive performance shortfall in any area, the appropriate improvement expectations and targets will be incorporated into the PEMP and tracked through self-assessment and independent oversight, as appropriate.

(c) Compliance with applicable Federal, State and local laws and regulations, and permits and licenses, shall be primarily determined by the cognizant regulatory agency and DOE will primarily rely upon the determination of the external regulators in assessing Contract compliance. DOE oversight will be achieved through periodic assessments at the management system level, including review of Contractor self-assessments and assessments by independent third parties.

CLAUSE H.30 – LOBBYING RESTRICTION (CONSOLIDATED APPROPRIATIONS ACT, 2014)

The Contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters

pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. § 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

(End of Clause)

CLAUSE H.31 - DOE MENTOR PROTÉGÉ PROGRAM

The Department of Energy has established a Mentor-Protégé Program to encourage its prime contractors to assist small businesses, firms certified under section 8(a) of the Small Business Act by SBA, other small disadvantaged businesses, women-owned small businesses, Historically Black Colleges and Universities and Minority Institutions, other minority institutions of higher learning and small business concerns owned and controlled by service disabled veterans in enhancing their business abilities. Consistent with the provisions set forth in DEAR 919.70, the Contractor shall Mentor at least one active Protégé company at all times during the performance on this contract. Mentor and Protégé firms will develop and submit "lessons learned" evaluations to DOE at the conclusion of the contract.

CLAUSE H.32 - RESERVED

CLAUSE H.33 - RESERVED

CLAUSE H.34 - RESERVED

CLAUSE H.35 - RESERVED

CLAUSE H.36 - RESERVED

CLAUSE H.37 - DEFENSE AND INDEMNIFICATION OF EMPLOYEES

(a) The Parties recognize that, under applicable State law, the Contractor could be required to defend and indemnify its officers and employees from and against civil actions and other claims which arise out of the performance of work under this Contract. Except for defense costs made unallowable by Section I clause entitled Payments and Advances, or the Major Fraud Act (41 U.S.C. § 4310), the costs and expenses, including judgments, resulting from the defense and indemnification of employees from and against such civil actions and claims shall be allowable costs under this contract if incurred pursuant to the terms of Section I clause entitled Insurance–Litigation and Claims.

(b) Costs and expenses, including judgments, resulting from the defense and indemnification of employees from civil fraud actions filed in federal court by the Government will be unallowable where the employee pleads nolo contendere or the action results in a judgment against the defendant.

(c) Where in accordance with applicable State law, the Contractor determines it must defend an

employee in a criminal action, DOE will consider in good faith, on a case-by-case basis, whether the Contractor has such an obligation. If DOE concurs, the costs and expenses, including judgments, resulting from the defense and indemnification of employees shall be allowable.

(d) The Contractor shall immediately furnish the Contracting Officer written notice of any such claim or civil action filed against any employee of the Contractor arising out of the work under this contract together with copies of all pleadings filed. The Contractor shall furnish to the Contracting Officer a written determination by the Contractor's counsel that the defense or indemnity of the employee is required by:

(e) the provisions of applicable State law, that the employee was acting within the course and scope of employment at the time of the acts or omissions which gave rise to the claim or civil action, and that any exclusions set forth under applicable State law for fraud, corruption, malice, willful misconduct, or lack of good faith on the part of the employee does not apply. A copy of any letter asserting a reservation of rights under applicable State law with respect to the defense or indemnification of such employee shall also be provided to the Contracting Officer. The costs associated with the settlement of any such claim or civil action shall not be treated as an allowable cost unless approved in writing by the Contracting Officer.

CLAUSE H.38 - DISPOSAL OF REAL PROPERTY

Disposal of any permanent or temporary interest in real property shall require the prior approval of the Contracting Officer.

CLAUSE H.39 – RESERVED

CLAUSE H.40 - RESERVED

CLAUSE H.41 - INFORMATION TECHNOLOGY ACQUISITIONS

All information technology acquisitions shall include the appropriate information technology security policies and requirements, including use of common security configurations available from the National Institute of Standards and Technology's website at http://checklists.nist.gov commensurate with the mission of the contract and conducive to the research and development efforts of the laboratory. This requirement shall be included in all subcontracts which are for information technology acquisitions; and the Laboratory CIO shall annually certify to the DOE Site Office Contracting Officer that this requirement is being incorporated into information technology acquisitions.

CLAUSE H.42 - ACTIVITIES DURING CONTRACT TRANSITION (SPECIAL)

(a) The Contractor will commence Transition Activities as soon as possible after the award of

the contract and complete the following activities (to the extent identified in the Contractor's proposal) within sixty (60) days, after contract award, except as otherwise authorized by the Contracting Officer. It is currently estimated that transition activities will be completed by December 31, 2006. After completion of these activities, and such other Transition Activities as may be authorized by the Contracting Officer, the Contractor shall advise the Contracting Officer that it is ready to assume full responsibility for the Laboratory. Upon receipt of written notification from the Contracting Officer that the Transition Activities are considered complete, the Contractor shall assume full responsibility for the Laboratory, effective 12:01 A.M., the next day.

(1) Scientific Research. Complete the activities that will allow the Contractor to assume control of FNAL's scientific programs and facilities.

(2) Management Systems. Analyze and initiate enhancements, if needed, to the existing management systems (e.g., Finance, Property, Procurement, Information Management, Life Cycle Asset Management, Integrated Safety Management System [including the Environmental Management System], Human Resources) to assure system adequacy.

(3) Assignment of Existing Agreements. Initiate and complete the planning to assume the responsibility for existing regulatory (e.g., environmental permits) and commercial agreements (e.g., subcontracts, purchase orders, etc.) to be assigned to the Contractor by the Universities Research Association, Inc., or otherwise taken over by Contractor. Initiate the assumption of said responsibility with the objective of being eighty-five percent (85%) complete by the end of the transition period.

(4) Joint Reconciliation Property Inventory. Initiate and complete the planning for a joint reconciliation property inventory with the Universities Research Association, Inc., see Clause I.129 (i)(2)(ii), in accordance with overall guidance provided by the Contracting Officer.

(5) Litigation Management. Contractor shall consult with the Universities Research Association, Inc. and DOE to determine whether Contractor should assume some level of management of any litigation resulting from laboratory operations predating the effective date of this contract. The decision should be based on consideration of cost efficiency, named parties, relevance of retrospective insurance, and DOE litigation management guidelines.

(6) Human Resources

(A) The Contractor will transition the workforce without break in service as operations cease under Contract DE-AC02-76CH03000.

(B) The Contractor will conduct work force planning, documented in the form of a plan, to be submitted to the Contracting Officer for review and approval at the end of the Transition Period. The Plan will identify the status of critical-skills and the strategy for the recruitment and/or retention of those skills, and specifically address the issues set forth below.

(i) If the Contractor intends to utilize "Joint Appointees" with educational institutions; how said "Joint Appointees" will be utilized; terms to be utilized; and a description of the reimbursement process to be negotiated with the educational institutions.

(ii) Incentive compensation strategy for "Key Personnel," other management personnel, and other employees, as appropriate, that meets the criteria of the DOE Acquisition Guide, Chapter 70.5, which can be located on the internet at http://professionals.pr.doe.gov and DOE Order 350.1.

(iii) The terms and conditions of employment that will be applicable to the bargaining unit workforce, demonstrating consistency with the respective collective bargaining agreements previously providing coverage.

(iv) The following will be specifically addressed under the *Human Resources Compensation Plan*, required to be submitted within 30 days of Contract award, pursuant to H.21(b)(7):

(a) The framework for the pension and health/welfare benefits applicable to the transferring workforce, with an assessment of the benefit value relative to those provided by the Universities Research Association, Inc. for FNAL employees.

(b) A framework of the total compensation package applicable to new hires under the contract.

Except as provided in paragraph (c) below, or as otherwise specifically agreed to by the Contractor and the Contracting Officer, all of the provisions of this contract shall apply to the Contractor's performance of Transition Activities.

(c) The following contract articles or portions thereof as noted below do not apply to the Contractor's Transition Activities:

(1) Clause C.4 - Statement of Work;

(2) Clause F.1 - Period of Performance, except that pertaining to the Transition Period;

(3) Clause H.1 - Laboratory Facilities;

(4) Clause H.2 - Long-Range Planning, Program Development and Budgetary Administration;

(5) Clause H.14 - Standards of Contractor Performance Evaluation;

(6) Clause H.15 - Cap on Liability;

(7) Clause H.22 - Contractor Acceptance of Notices of Violations or Alleged Violations, Fines, and Penalties;

(8) Clause H.23 - Allocation of Responsibilities for Contractor Environmental Compliance Activities;

(9) Clause I-11 - Required Sources for Helium and Helium Usage Data;

(10) Clause I.93 - Total Available Fee: Base Fee Amount and Performance Fee Amount;

(11) Clause I.94 - Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts;

(12) Clause I-95 - Work for Others Program (Non-DOE Funded Work);

(13) Clause I.115 - Preexisting Conditions;

(14) Clause I.121 - Work for Others Funding Authorization;

(15) Appendix B - Performance Evaluation and Measurement Plan;

(d) Contractor agrees to perform the activities set forth in paragraph (a) above, including relocation of Contractor's "Key Personnel," as described in its Cost Proposal, at an allowable cost not to exceed $907,215.00. In the event the

actual cost of said activities exceeds such amount, including any costs for relocation of Contractor's "Key Personnel" incurred after the conclusion of the transition period, Contractor agrees that it will be solely responsible for costs greater than said amount.

CLAUSE H.43 - SPECIAL FINANCIAL INSTITUTION ACCOUNT AGREEMENT

The Contractor agrees to procure, in accordance with DOE requirements and direction, a new Special Financial Institution Account Agreement in sufficient time to have said Agreement in place and effective as of January 1, 2007.

CLAUSE H.44 - AGREEMENTS AND COMMITMENTS

(a) The resources proposed by the Contractor and accepted by the Government are incorporated into the contract as set forth below:

The Contractor shall provide the above described resources in the amount, manner, and schedule as specified below:

The Contractor has committed to provide $12,113,000 in financial obligations in the performance of this Contract. Details of the commitments are set forth in Section J.4, Appendix D – Contractor Commitments.

The Contractor shall provide the above described resources in the amount, manner, and schedule as specified in Contractor's response to Provision L.8 of RFP No. DE-RP02-06CH11359. If the Contractor fails to provide any and all of these resources or to make progress toward providing these resources, the Government may exercise any of its rights and remedies under the contract, including those contained in the provision of the Section I clause entitled, "Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts."

(b) Any costs incurred by the Contractor in providing any of these resources are expressly unallowable under the contract.

CLAUSE H.45 - MODIFICATION AUTHORITY

Notwithstanding any of the other clauses of this contract, the Contracting Officer shall be the only individual authorized to:

(a) Accept nonconforming work,

(b) Waive any requirement of this contract, or

(c) Modify any term or condition of this contract.

CLAUSE H.46 – CONFERENCE SPENDING (MANAGEMENT AND OPERATING CONTRACTS)

The Contractor agrees that:

a) No cost associated with conference activities shall be allowable under this contract unless the conference is directly and programmatically related to the purpose of the contract and the specific work authorization/order/task directing the conference activities.

b) The Contractor shall follow the most current guidance issued by DOE concerning reporting of conference related activities and spending. The Contractor shall request, obtain approval (if $100,000 or greater), and report all conference activities through the Conference Management Reporting and Approval Tool on the DOE iPortal at https://iportal.doe.gov.

(c) While a conference may be approved by DOE based on estimated cost and attendance to ensure federal funds are used for purposes that are appropriate, cost effective, and important to the core mission, only the Contracting Officer has authority to determine if the costs incurred by the Contractor are allowable, allocable, and reasonable.

(d) The Contractor and its employees, its sponsors, hosts and attendees shall aggressively seek to limit costs associated with a conference. Conference expenditures shall be kept to the minimum necessary to carry out the Department's mission and consistent with applicable portions of the Federal Travel Regulation, and 48 CFR chapter 1, the Federal Acquisition Regulation.

(e) The Contractor shall ensure its conference attendees conduct themselves with the highest level of professionalism and ethical behavior consistent with that expected of DOE employees.

(f) The Contracting Officer will ensure conference activities are included in the Contractor's annual audit plan.

(End of Clause)

CLAUSE H.47 – (DOE-H-2073) RISK MANAGEMENT AND INSURANCE PROGRAMS

Contractor officials shall ensure that the requirements set forth below are applied in the establishment and administration of DOE-funded prime cost reimbursement contracts for management and operation of DOE facilities and other designated long-lived onsite contracts for which the contractor has established separate operating business units.

1. BASIC REQUIREMENTS

a. Maintain commercial insurance or a self-insured program, (i.e., any insurance policy or coverage that protects the contractor from the risk of legal liability for adverse actions associated with its operation, including malpractice, injury, or negligence) as required by the terms of the contract. Types of insurance include automobile, general liability, and other third party liability insurance. Other forms of coverage must be justified as necessary in the operation of the Department facility and/or the performance of the contract, and approved by the DOE.

b. Contractors shall not purchase insurance to cover public liability for nuclear incidents without DOE authorization (See DEAR 970.5070, Indemnification, and DEAR 950.70, Nuclear Indemnification of DOE Contractors).

c. Demonstrate that insurance programs and costs comply with the cost limitations and exclusions at FAR 28.307, Insurance Under Cost Reimbursement Contracts, FAR 31.205-19, Insurance and Indemnification, DEAR 952.231-71 Insurance-Litigation and Claims, and DEAR 970.5228-1, Insurance-Litigation and Claims.

d. Demonstrate that the insurance program is being conducted in the government's best interest and at reasonable cost.

e. The contractor shall submit copies of all insurance policies or insurance arrangements to the Contracting Officer no later than 30 days after the purchase date.

f. When purchasing commercial insurance, the contractor shall use a competitive process to ensure costs are reasonable.

g. Ensure self-insurance programs include the following elements:

(1) Compliance with criteria set forth in FAR 28.308, Self-Insurance. Approval of self-insurance is predicated upon submission of verifiable proof that the self-insurance charge does not exceed the cost of purchased insurance. This includes hybrid plans (i.e., commercially purchased insurance with self-insured retention (SIR) such as large deductible, matching deductible, retrospective rating cash flow plans, and other plans where insurance reserves are under the control of the insured). The SIR components of such plans are self-insurance and are subject to the approval and submission requirements of FAR 28.308, as applicable.

(2) Demonstration of full compliance with applicable state and federal regulations and related professional administration necessary for participation in alternative insurance programs.

(3) Safeguards to ensure third party claims and claims settlements are processed in accordance with approved procedures.

(4) Accounting of self-insurance charges.

(5) Accrual of self-insurance reserve. The Contracting Officer's approval is required and predicated upon the following:

(a) The claims reserve shall be held in a special fund or interest bearing account.

(b) Submission of a formal written statement to the Contracting Officer stating that use of the reserve is exclusively for the payment of insurance claims and losses, and that DOE shall receive its equitable share of any excess funds or reserve.

(c) Annual accounting and justification as to the reasonableness of the claims reserve submitted for Contracting Officer's review.

(d) Claim reserves, not payable within the year the loss occurred, are discounted to present value based on the prevailing Treasury rate.

h. Separately identify and account for interest cost on a Letter of Credit used to guarantee self-insured retention, as an unallowable cost and omitted from charges to the DOE contract.

i. Comply with the Contracting Officer's written direction for ensuring the continuation of insurance coverage and settlement of incurred and/or open claims and payments of premiums owed or owing to the insurer for prior DOE contractors.

2. PLAN EXPERIENCE REPORTING. The Contractor shall:

a. provide the Contracting Officer with annual experience reports for each type of insurance (e.g., automobile and general liability), listing the following for each category:

(1) The amount paid for each claim.

(2) The amount reserved for each claim.

(3) The direct expenses related to each claim.

(4) A summary for the year showing total number of claims.

(5) A total amount for claims paid.

(6) A total amount reserved for claims.

(7) The total amount of direct expenses.

b. provide the Contracting Officer with an annual report of insurance costs and/or self-insurance charges. When applicable, separately identify total policy expenses (e.g., commissions, premiums, and costs for claims servicing) and major claims during the year, including those expected to become major claims (e.g., those claims valued at $100,000 or greater).

c. provide additional claim financial experience data as may be requested on a case-by-case basis.

3. TERMINATING OPERATIONS. The Contractor shall:

a. ensure protection of the government's interest through proper recording of cancellation credits due to policy terminations and/or experience rating.

b. identify and provide continuing insurance policy administration and management requirements to a successor, other DOE contractor, or as specified by the Contracting Officer.

c. reach agreement with DOE on the handling and settlement of self insurance claims incurred but not reported at the time of contract termination; otherwise, the contractor shall retain this liability.

4. SUCCESSOR CONTRACTOR OR INSURANCE POLICY CANCELLATION.

The Contractor shall:

a. obtain the written approval of the Contracting Officer for any change in program direction; and

b. ensure insurance coverage replacement is maintained as required and/or approved by the Contracting Officer.

PART II

SECTION I

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CONTRACT CLAUSES

CLAUSE I.1 - FAR 52.202-1 DEFINITIONS (NOV 2013); MODIFIED BY DEAR 952.202-1

When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless—

(a) The solicitation, or amended solicitation, provides a different definition;

(b) The contracting parties agree to a different definition;

(c) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or

(d) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.

When a solicitation provision or contract clause uses a word or term that is defined in the Department of Energy Acquisition Regulation (DEAR) (48 CFR chapter 9), the word or term has the same meaning as the definition in 48 CFR 902.101 or the definition in the part, subpart, or section of 48 CFR chapter 9 where the provision or clause is prescribed in effect at the time the solicitation was issued, unless an exception in (a) applies.

(End of clause)

CLAUSE I.2 - FAR 52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative:

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) above, the Government is entitled:

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than three (3) nor more than ten (10) times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

CLAUSE I.3 - FAR 52.203-5 COVENANT AGAINST CONTINGENT FEES (MAY 2014)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency", as used in this clause, means an established commercial or selling agency, maintained by a Contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee", as used in this clause, means a person, employed by a Contractor and subject to the Contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee", as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence", as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

CLAUSE I.4 - FAR 52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (SEP 2006)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed the simplified acquisition threshold.

CLAUSE I.5 - FAR 52.203-7 ANTI-KICKBACK PROCEDURES (MAY 2014)

(a) *Definitions*.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contractor in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor" as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or

services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) 41 U.S.C. chapter 87, Kickbacks, prohibits any person from—

(1) Providing or attempting to provide or offering to provide any kickback;
(2) Soliciting, accepting, or attempting to accept any kickback; or
(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c) (1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Attorney General.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold from sums owed a subcontractor under the prime contract the amount of the kickback. The Contracting Officer may order that monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including paragraph (c)(5) but excepting paragraph (c)(1), in all subcontracts under this contract which exceed $150,000.

CLAUSE I.6 - FAR 52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

(a) If the Government receives information that a contractor or a person has violated 41 U.S.C. 2102-2104, Restrictions on Obtaining and Disclosing Certain Information, the Government may—

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or
(2) Rescind the contract with respect to which --

(i)The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct violates 41 U.S.C. 2102 for the purpose of either—

(A) Exchanging the information covered by such subsections for anything of value; or
(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii)The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct punishable under 41 U.S.C. 2105(a).

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

CLAUSE I.7 - FAR 52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of 41 U.S.C. 2102 or 2103, as implemented in section 3.104 of the Federal Acquisition Regulation

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be --

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award fee contracts --

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may --

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime Contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the statute by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

CLAUSE I.8 – FAR 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (OCT 2010)

(a) *Definitions*. As used in this clause—

"Agency" means "*executive agency*" as defined in Federal Acquisition Regulation (FAR) 2.101.

"Covered Federal action" means any of the following actions:

(1) Awarding any Federal contract.

(2) Making any Federal grant.

(3) Making any Federal loan.

(4) Entering into any cooperative agreement.

(5) Extending, continuing, renewing, amending, or modifying any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization" have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b) and include Alaskan Natives.

"Influencing or attempting to influence" means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government" means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency" includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person" means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is

operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

"Reasonable compensation" means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment" means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient" includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and *are* permitted by other Federal law.

"Regularly employed" means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State" means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) *Prohibition*. 31 U.S.C. 1352 prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal actions. In accordance with 31 U.S.C. 1352 the Contractor shall not use appropriated funds to pay any person for influencing or attempting to influence an officer or employee

of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the award of this contractor the extension, continuation, renewal, amendment, or modification of this contract.

(1) The term *appropriated funds* does not include profit or fee from a covered Federal action.

(2) To the extent the Contractor can demonstrate that the Contractor has sufficient monies, other than Federal appropriated funds, the Government will assume that these other monies were spent for any influencing activities that would be unallowable if paid for with Federal appropriated funds.

(c) *Exceptions*. The prohibition in paragraph (b) of this clause does not apply under the following conditions:

(1) *Agency and legislative liaison by Contractor employees*.

(i) Payment of reasonable compensation made to an officer or employee of the Contractor if the payment is for agency and legislative liaison activities not directly related to this contract. For purposes of this paragraph, providing any information specifically requested by an agency or Congress is permitted at any time.

(ii) Participating with an agency in discussions that are not related to a specific solicitation for any covered Federal action, but that concern—

(A) The qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities; or

(B) The application or adaptation of the person's products or services for an agency's use.

(iii) Providing prior to formal solicitation of any covered Federal action any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(iv) Participating in technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(v) Making capability presentations prior to formal solicitation of any covered Federal action by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(2) *Professional and technical services*.

(i) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(ii) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(iii) As used in paragraph (c)(2) of this clause, "professional and technical services" are limited to advice and analysis directly applying any professional or technical discipline (for examples, see FAR 3.803(a)(2)(iii)).

(iv) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(3) Only those communications and services expressly authorized by paragraphs (c)(1) and (2) of this clause are permitted.

(d) *Disclosure*.

(1) If the Contractor did not submit OMB Standard Form LLL, Disclosure of Lobbying Activities, with its offer, but registrants under the Lobbying Disclosure Act of 1995 have subsequently made a lobbying contact on behalf of the Contractor with respect to this contract, the Contractor shall complete and submit OMB Standard Form LLL to provide the name of the lobbying registrants, including the individuals performing the services.

(2) If the Contractor did submit OMB Standard Form LLL disclosure pursuant to paragraph (d) of the provision at FAR 52.203-11, Certification and Disclosure

Regarding Payments to Influence Certain Federal Transactions, and a change occurs that affects Block 10 of the OMB Standard Form LLL (name and address of lobbying registrant or individuals performing services), the Contractor shall, at the end of the calendar quarter in which the change occurs, submit to the Contracting Officer within 30 days an updated disclosure using OMB Standard Form LLL.

(e) *Penalties*.

(1) Any person who makes an expenditure prohibited under paragraph (b) of this clause or who fails to file or amend the disclosure to be filed or amended by paragraph (d) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) *Cost allowability*. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(g) *Subcontracts*.

(1) The Contractor shall obtain a declaration, including the certification and disclosure in paragraphs (c) and (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, from each person requesting or receiving a subcontract exceeding $150,000 under this contract. The Contractor or subcontractor that awards the subcontract shall retain the declaration.

(2) A copy of each subcontractor disclosure form (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall, at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor, submit to the Contracting Officer within 30 days a copy of all disclosures. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(3) The Contractor shall include the substance of this clause, including this paragraph (g), in any subcontract exceeding $150,000.

CLAUSE I.8A - FAR 52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (APR 2010)

(a) *Definitions. As used in this clause*—

"Agent" means any individual, including a director, an officer, an employee, or an independent Contractor, authorized to act on behalf of the organization.

"Full cooperation"—

(1) Means disclosure to the Government of the information sufficient for law enforcement to identify the nature and extent of the offense and the individuals responsible for the conduct. It includes providing timely and complete response to Government auditors' and investigators' request for documents and access to employees with information;

(2) Does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not require—

(i) A Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine; or

(ii) Any officer, director, owner, or employee of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; and

(3) Does not restrict a Contractor from—

(i) Conducting an internal investigation; or

(ii) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.

"Principal" means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (*e.g.*, general manager; plant manager; head of a division or business segment; and similar positions).

"Subcontract" means any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract.

"Subcontractor" means any supplier, distributor, vendor, or firm that furnished supplies or services to or for a prime contractor or another subcontractor.

"United States," means the 50 States, the District of Columbia, and outlying areas.

(b) *Code of business ethics and conduct.*

(1) Within 30 days after contract award, unless the Contracting Officer establishes a longer time period, the Contractor shall—

(i) Have a written code of business ethics and conduct; and

(ii) Make a copy of the code available to each employee engaged in performance of the contract.

(2) *The Contractor shall—*

(i) *Exercise due diligence to prevent and detect criminal conduct; and*

(ii) *Otherwise promote an organizational culture that encourages ethical conduct and a commitment to compliance with the law.*

(3)(i) The Contractor shall timely disclose, in writing, to the agency Office of the Inspector General (OIG), with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of this contract or any subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed—

(A) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or

(B) A violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(ii) The Government, to the extent permitted by law and regulation, will safeguard and treat information obtained pursuant to the Contractor's disclosure as confidential where the information has been marked "confidential" or "proprietary" by the company. To the extent permitted by law and regulation, such information will not be released by the Government to the public pursuant to a Freedom of Information Act request, 5 U.S.C. Section 552, without prior notification to the Contractor. The Government may transfer documents provided by the Contractor to any department or agency within the Executive Branch if the information relates to matters within the organization's jurisdiction.

(iii) If the violation relates to an order against a Governmentwide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the Contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract.

(c) Business ethics awareness and compliance program and internal control system. This paragraph (c) does not apply if the Contractor has represented itself as a small business concern pursuant to the award of this contract or if this contract is for the acquisition of a commercial item as defined at FAR 2.101. The Contractor shall establish the following within 90 days after contract award, unless the Contracting Officer establishes a longer time period:

(1) An ongoing business ethics awareness and compliance program.

(i) This program shall include reasonable steps to communicate periodically and in a practical manner the Contractor's standards and procedures and other aspects of the Contractor's business ethics awareness and compliance program and internal control system, by conducting effective training programs and otherwise disseminating information appropriate to an individual's respective roles and responsibilities.

(ii) The training conducted under this program shall be provided to the Contractor's principals and employees, and as appropriate, the Contractor's agents and subcontractors.

(2) An internal control system.

(i) The Contractor's internal control system shall—

(A) Establish standards and procedures to facilitate timely discovery of improper conduct in connection with Government contracts; and

(B) Ensure corrective measures are promptly instituted and carried out.

(ii) At a minimum, the Contractor's internal control system shall provide for the following:

(A) Assignment of responsibility at a sufficiently high level and adequate resources to ensure effectiveness of the business ethics awareness and compliance program and internal control system.

(B) Reasonable efforts not to include an individual as a principal, whom due diligence would have exposed as having engaged in conduct that is in conflict with the Contractor's code of business ethics and conduct.

(C) Periodic reviews of company business practices, procedures, policies, and internal controls for compliance with the Contractor's code of business ethics and conduct and the special requirements of Government contracting, including—

(1) Monitoring and auditing to detect criminal conduct;

(2) Periodic evaluation of the effectiveness of the business ethics awareness and compliance program and internal control system, especially if criminal conduct has been detected; and

(3) Periodic assessment of the risk of criminal conduct, with appropriate steps to design, implement, or modify the business ethics awareness and compliance program and the internal control system as necessary to reduce the risk of criminal conduct identified through this process.

(D) An internal reporting mechanism, such as a hotline, which allows for anonymity or confidentiality, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(E) Disciplinary action for improper conduct or for failing to take reasonable steps to prevent or detect improper conduct.

(F) Timely disclosure, in writing, to the agency OIG, with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of any Government contract performed by the Contractor or a subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed a violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 U.S.C. or a violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(1) If a violation relates to more than one Government contract, the Contractor may make the disclosure to the agency OIG and Contracting Officer responsible for the largest dollar value contract impacted by the violation.

(2) If the violation relates to an order against a Governmentwide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract, and the respective agencies' contracting officers.

(3) The disclosure requirement for an individual contract continues until at least 3 years after final payment on the contract.

(4) The Government will safeguard such disclosures in accordance with paragraph (b)(3)(ii) of this clause.

(G) Full cooperation with any Government agencies responsible for audits, investigations, or corrective actions.

(d) *Subcontracts*.

(1) The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts that have a value in excess of $5,000,000 and a performance period of more than 120 days.

(2) In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

CLAUSE I.8B - FAR 52.203-14 DISPLAY OF HOTLINE POSTER(S) (DEC 2007); MODIFIED BY DEAR 903.1004

(a) Definition.

"United States," as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) Display *of fraud hotline poster(s)*. Except as provided in paragraph (c)—

(1) During contract performance in the United States, the Contractor shall prominently display in common work areas within business segments performing work under this contract and at contract work sites—

(i) Any agency fraud hotline poster or Department of Homeland Security (DHS) fraud hotline poster identified in paragraph (b)(3) of this clause; and

(ii) Any DHS fraud hotline poster subsequently identified by the Contracting Officer.

(2) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

(3) Any required posters may be obtained as follows:

Poster(s)	Obtain from
Hotline Poster	http://ig.energy.gov/hotline.htm

(c) If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a hotline poster, then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

(d) *Subcontracts*. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed $5,000,000, except when the subcontract—

(1) Is for the acquisition of a commercial item; or

(2) Is performed entirely outside the United States.

CLAUSE 1.8C – FAR 52.203-15 WHISTLEBLOWER PROTECTIONS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009 (JUNE 2010)

(a) The Contractor shall post notice of employees rights and remedies for whistleblower protections provided under section 1553 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act).

(b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts that are funded in whole or in part with Recovery Act funds.

CLAUSE I.8D-FAR 52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (APR 2014)

(a) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and FAR 3.908.

(b) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the Federal Acquisition Regulation.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts over the simplified acquisition threshold.

(End of clause)

CLAUSE I.9 - FAR 52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER CONTENT PAPER (MAY 2011)

(a) Definitions. As used in this clause—

Postconsumer fiber means—

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

(b) The Contractor is required to submit paper documents, such as offers, letters, or reports that are printed or copied double-sided on paper containing at least 30 percent postconsumer fiber, whenever practicable, when not using electronic commerce methods to submit information or data to the Government.

CLAUSE I.10 - FAR 52.204-9 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (JAN 2011)

(a) The Contractor shall comply with agency personal identity verification procedures identified in the contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24 and Federal Information Processing Standards Publication (FIPS PUB) Number 201.

(b) The Contractor shall account for all forms of Government-provided identification issued to the Contractor employees in connection with performance under this contract. The Contractor shall return such identification to the issuing agency at the earliest of any of the following, unless otherwise determined by the Government:

(1) When no longer needed for contract performance.
(2) Upon completion of the Contractor employee's employment.
(3) Upon contract completion or termination.

(c) The Contracting Officer may delay final payment under a contract if the Contractor fails to comply with these requirements.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts when the subcontractor's employees are required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system. It shall be the responsibility of the prime Contractor to return such identification to the issuing agency in accordance with the terms set forth in paragraph (b) of this section, unless otherwise approved in writing by the Contracting Officer.

CLAUSE I.10A - FAR 52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (JUL 2013)

(a) *Definitions.* As used in this clause:

Executive means officers, managing partners, or any other employees in management positions.

First-tier subcontract means a subcontract awarded directly by the Contractor for the purpose of acquiring supplies or services (including construction) for performance of a prime contract. It does not include the Contractor's supplier agreements with vendors, such as long-term arrangements for materials or supplies that benefit multiple contracts and/or the costs of which are normally applied to a Contractor's general and administrative expenses or indirect costs.

Month of award means the month in which a contract is signed by the Contracting Officer or the month in which a first-tier subcontract is signed by the Contractor.

Total compensation means the cash and noncash dollar value earned by the executive during the Contractor's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

(1) *Salary and bonus.*

(2) *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Financial Accounting Standards Board's Accounting Standards Codification (FASB ASC) 718, Compensation-Stock Compensation.

(3) *Earnings for services under non-equity incentive plans.* This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

(4) *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

(5) *Above-market earnings on deferred compensation which is not tax-qualified.*

(6) Other compensation, if the aggregate value of all such other compensation (e.g., severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.

(b) Section 2(d)(2) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. 109-282), as amended by section 6202 of the Government Funding Transparency Act of 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all reported information be made public, therefore,

the Contractor is responsible for notifying its subcontractors that the required information will be made public.

(c) Nothing in this clause requires the disclosure of classified information.

(d)(1) *Executive compensation of the prime contractor.* As a part of its annual registration requirement in the System for Award Management (SAM) database (FAR provision 52.204-7), the Contractor shall report the names and total compensation of each of the five most highly compensated executives for its preceding completed fiscal year, if—

(i) In the Contractor's preceding fiscal year, the Contractor received—

(A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(B) $25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at *http://www.sec.gov/answers/execomp.htm.).*

(2) *First-tier subcontract information.* Unless otherwise directed by the contracting officer, or as provided in paragraph (g) of this clause, by the end of the month following the month of award of a first-tier subcontract with a value of $25,000 or more, the Contractor shall report the following information at *http://www.fsrs.gov* for that first-tier subcontract. (The Contractor shall follow the instructions at *http://www.fsrs.gov* to report the data.)

(i) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.

(ii) Name of the subcontractor.

(iii) Amount of the subcontract award.

(iv) Date of the subcontract award.

(v) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.

(vi) Subcontract number (the subcontract number assigned by the Contractor).

(vii) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(viii) Subcontractor's primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(ix) The prime contract number, and order number if applicable.

(x) Awarding agency name and code.

(xi) Funding agency name and code.

(xii) Government contracting office code.

(xiii) Treasury account symbol (TAS) as reported in FPDS.

(xiv) The applicable North American Industry Classification System code (NAICS).

(3) *Executive compensation of the first-tier subcontractor.* Unless otherwise directed by the Contracting Officer, by the end of the month following the month of award of a first-tier subcontract with a value of $25,000 or more, and annually thereafter (calculated from the prime contract award date), the Contractor shall report the names and total compensation of each of the five most highly compensated executives for that first-tier subcontractor for the first-tier subcontractor's preceding completed fiscal year at *http://www.fsrs.gov,* if—

(i) In the subcontractor's preceding fiscal year, the subcontractor received—

(A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(B) $25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at *http://www.sec.gov/answers/execomp.htm.*)

(e) The Contractor shall not split or break down first-tier subcontract awards to a value less than $25,000 to avoid the reporting requirements in paragraph (d).

(f) The Contractor is required to report information on a first-tier subcontract covered by paragraph (d) when the subcontract is awarded. Continued reporting on the same subcontract is not required unless one of the reported data elements changes during the performance of the subcontract. The Contractor is not required to make further reports after the first-tier subcontract expires.

(g)(1) If the Contractor in the previous tax year had gross income, from all sources, under $300,000, the Contractor is exempt from the requirement to report subcontractor awards.

(2) If a subcontractor in the previous tax year had gross income from all sources under $300,000, the Contractor does not need to report awards for that subcontractor.

(h) The FSRS database at *http://www.fsrs.gov* will be prepopulated with some information from SAM and FPDS databases. If FPDS information is incorrect, the contractor should notify the contracting officer. If the SAM database information is incorrect, the contractor is responsible for correcting this information.

(End of clause)

CLAUSE 1.10B – FAR 52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (JUL 2013)

(a) *Definitions.* As used in this clause—

Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities, which is used as the identification number for Federal Contractors.

Data Universal Numbering System+4 (DUNS+4) number means the DUNS number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional SAM records for identifying alternative Electronic Funds Transfer (EFT) accounts (see the FAR at subpart 32.11) for the same concern.

Registered in the System for Award Management (SAM) database means that—

(1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, the Contractor and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14), into the SAM database;

(2) The Contractor has completed the Core, Assertions, Representations and Certifications, and Points of Contact sections of the registration in the SAM database;

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The Contractor will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and

(4) The Government has marked the record “Active”.

System for Award Management (SAM) means the primary Government repository for prospective Federal awardee and Federal awardee information and the centralized Government system for certain contracting, grants, and other assistance-related processes. It includes—

(1) Data collected from prospective Federal awardees required for the conduct of business with the Government;

(2) Prospective contractor-submitted annual representations and certifications in accordance with FAR subpart 4.12; and

(3) Identification of those parties excluded from receiving Federal contracts, certain subcontracts, and certain types of Federal financial and non-financial assistance and benefits.

(b) The Contractor is responsible for the accuracy and completeness of the data within the SAM database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the SAM database after the initial registration, the Contractor is required to review and update on an annual basis, from the date of initial registration or subsequent updates, its information in the SAM database to ensure it is current, accurate and complete. Updating information in the SAM does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(c)(1)(i) If a Contractor has legally changed its business name, *doing business as* name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to—

(A) Change the name in the SAM database;

(B) Comply with the requirements of subpart 42.12 of the FAR; and

(C) Agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor shall provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (c)(1)(i) of this clause, or fails to perform the agreement at paragraph (c)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the SAM information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the SAM record to reflect an assignee for the purpose of assignment of claims (see FAR subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the SAM. Information provided to the Contractor's SAM record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the EFT clause of this contract.

(3) The Contractor shall ensure that the DUNS number is maintained with Dun & Bradstreet throughout the life of the contract. The Contractor shall communicate any change to the DUNS number to the Contracting Officer within 30 days after the change, so an appropriate modification can be issued to update the data on the contract. A change in the DUNS number does not necessarily require a novation be accomplished. Dun & Bradstreet may be contacted—

(i) Via the internet at *http://fedgov.dnb.com/webform* or if the Contractor does not have internet access, it may call Dun and Bradstreet at 1-866-705-5711 if located within the United States; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(d) Contractors may obtain additional information on registration and annual confirmation requirements at *https://www.acquisition.gov.*

CLAUSE I.10C – FAR 52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE (NOV 2014)

(a) *Definition.* As used in this clause—

Commercial and Government Entity (CAGE) code means—

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Contractor and Government Entity (CAGE) Branch to identify a commercial or government entity, or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Contractor and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as an NCAGE code.

(b) Contractors shall ensure that the CAGE code is maintained throughout the life of the contract. For contractors registered in the System for Award Management (SAM), the DLA Contractor and Government Entity (CAGE) Branch shall only modify data received from SAM in the CAGE master file if the contractor initiates those changes via update of its SAM registration. Contractors undergoing a novation or change-of-name agreement shall notify the contracting officer in accordance with subpart 42.12. The contractor shall communicate any change to the CAGE code to the contracting officer within 30 days after the change, so that a modification can be issued to update the CAGE code on the contract.

(c) Contractors located in the United States or its outlying areas that are not registered in SAM shall submit written change requests to the DLA Contractor and Government Entity (CAGE) Branch. Requests for changes shall be provided on a DD Form 2051, Request for Assignment of a Commercial and Government Entity (CAGE) Code, to the address shown on the back of the DD Form 2051. Change requests to the CAGE master file are accepted from the entity identified by the code.

(d) Contractors located outside the United States and its outlying areas that are not registered in SAM shall contact the appropriate National Codification Bureau or NSPA to request CAGE changes. Points of contact for National Codification Bureaus and NSPA, as well as additional information on obtaining NCAGE codes, are available at *http://www.dlis.dla.mil/Forms/Form_AC135.asp.*

(e) Additional guidance for maintaining CAGE codes is available at *http://www.dlis.dla.mil/cage_welcome.asp.*

(End of Clause)

CLAUSE I.10D - FAR 52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS (DEC 2014)

The Contractor's representations and certifications, including those completed electronically via the System for Award Management (SAM), are incorporated by reference into the contract.

(End of clause)

CLAUSE I.11 - FAR 52.208-8 REQUIRED SOURCES FOR HELIUM AND HELIUM USAGE DATA (APR 2014)

(a) *Definitions.*

Bureau of Land Management, as used in this clause, means the Department of the Interior, Bureau of Land Management, Amarillo Field Office, Helium Operations, located at 801 South Fillmore Street, Suite 500, Amarillo, TX 79101-3545.

Federal helium supplier means a private helium vendor that has an in-kind crude helium sales contract with the Bureau of Land Management (BLM) and that is on the BLM Amarillo Field Office's Authorized List of Federal Helium Suppliers available via the Internet at *http://www.blm.gov/nm/st/en/fo/Amarillo_Field_Office.html*.

Major helium requirement means an estimated refined helium requirement greater than 200,000 standard cubic feet (scf) (measured at 14.7 pounds per square inch absolute pressure and 70 degrees Fahrenheit temperature) of gaseous helium or 7510 liters of liquid helium delivered to a helium use location per year.

(b) *Requirements*—(1) Contractors must purchase major helium requirements from Federal helium suppliers, to the extent that supplies are available.

(2) The Contractor shall provide to the Contracting Officer the following data within 10 days after the Contractor or subcontractor receives a delivery of helium from a Federal helium supplier—

(i) The name of the supplier;

(ii) The amount of helium purchased;

(iii) The delivery date(s); and

(iv) The location where the helium was used.

(c) *Subcontracts.* The Contractor shall insert this clause, including this paragraph (c), in any subcontract or order that involves a major helium requirement.

(End of clause)

CLAUSE I.12 - FAR 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (AUG 2013)

(a) *Definition. Commercially available off-the-shelf (COTS)* item, as used in this clause—

(1) Means any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition in FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

(b) The Government suspends or debars Contractors to protect the Government's interests. Other than a subcontract for a commercially available off-the-shelf item, the Contractor shall not enter into any subcontract, in excess of $30,000 with a Contractor that is debarred, suspended, or proposed for debarment by any executive agency unless there is a compelling reason to do so.

(c) The Contractor shall require each proposed subcontractor whose subcontract will exceed $30,000, other than a subcontractor providing a commercially available off-the-shelf item, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(d) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party (other than a subcontractor providing a commercially available off-the-shelf item) that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the System for Award Management (SAM) Exclusions). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being listed with an exclusion in SAM.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its being listed with an exclusion in SAM.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(e) *Subcontracts.* Unless this is a contract for the acquisition of commercial items, the Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for the identification of the parties), in each subcontract that—

(1) Exceeds $30,000 in value; and

(2) Is not a subcontract for commercially available off-the-shelf items.

(End of clause)

CLAUSE I.12A – FAR 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (JUL 2013)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the System for Award Management database via *https://www.acquisition.gov*

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments—

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by—

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for—

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, *i.e.*, for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(End of clause)

CLAUSE I.12B - FAR 52.209-10 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS (DEC 2014)

(a) *Definitions.* As used in this clause—

Inverted domestic corporation means a foreign incorporated entity that meets the definition of an inverted domestic corporation under 6 U.S.C. 395(b), applied in accordance with the rules and definitions of 6 U.S.C. 395(c).

Subsidiary means an entity in which more than 50 percent of the entity is owned—

(1) Directly by a parent corporation; or

(2) Through another subsidiary of a parent corporation.

(b) If the contractor reorganizes as an inverted domestic corporation or becomes a subsidiary of an inverted domestic corporation at any time during the period of performance of this contract, the Government may be prohibited from paying for Contractor activities performed after the date when it becomes an inverted domestic corporation or subsidiary. The Government may seek any available remedies in the event the Contractor fails to perform in accordance with the terms and conditions of the contract as a result of Government action under this clause.

(c) Exceptions to this prohibition are located at 9.108-2.

(End of clause)

CLAUSE I.12C - FAR 52.210-1 MARKET RESEARCH (APR 2011)

(a) *Definition.* As used in this clause—

Commercial item and *nondevelopmental item* have the meaning contained in Federal Acquisition Regulation 2.101.

(b) Before awarding subcontracts over the simplified acquisition threshold for items other than commercial items, the Contractor shall conduct market research to—

(1) Determine if commercial items or, to the extent commercial items suitable to meet the agency's needs are not available, nondevelopmental items are available that—

(i) Meet the agency's requirements;

(ii) Could be modified to meet the agency's requirements; or

(iii) Could meet the agency's requirements if those requirements were modified to a reasonable extent; and

(2) Determine the extent to which commercial items or nondevelopmental items could be incorporated at the component level.

(End of clause)

CLAUSE I.13 - FAR 52.211-5 MATERIAL REQUIREMENTS (AUG 2000)

(a) Definitions.

As used in this clause --

"New" means composed of previously unused components, whether manufactured from virgin material, recovered material in the form of raw material, or materials and by-products generated from, and reused within, an original manufacturing process; provided that the supplies meet contract requirements, including but not limited to, performance, reliability, and life expectancy.

"Reconditioned" means restored to the original normal operating condition by readjustments and material replacement.

"Recovered material" means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

"Remanufactured" means factory rebuilt to original specifications.

"Virgin material" means --

(1) Previously unused raw material, including previously unused copper, aluminum, lead, zinc, iron, other metal or metal ore; or

(2) Any undeveloped resource that is, or with new technology will become, a source of raw materials.

(b) Unless this contract otherwise requires virgin material or supplies composed of or manufactured from virgin material, the Contractor shall provide supplies that are new, reconditioned, or remanufactured, as defined in this clause.

(c) A proposal to provide unused former Government surplus property shall include a complete description of the material, the quantity, the name of the Government agency from which acquired, and the date of acquisition.

(d) A proposal to provide used, reconditioned, or remanufactured supplies shall include a detailed description of such supplies and shall be submitted to the Contracting Officer for approval.

(e) Used, reconditioned, or remanufactured supplies, or unused former Government surplus property, may be used in contract performance if the Contractor has proposed the use of such supplies, and the Contracting Officer has authorized their use.

CLAUSE I.14 - FAR 52.215-8 ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT (OCT 1997)

Any inconsistency in this solicitation or contract shall be resolved by giving precedence in the following order:

(a) The Schedule (excluding the specifications).

(b) Representations and other instructions.

(c) Contract clauses.

(d) Other documents, exhibits, and attachments.

(e) The specifications.

CLAUSE I.15 - FAR 52.215-12 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA (OCT 2010)

(a) Before awarding any subcontract expected to exceed the threshold for submission of certified cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit certified cost or pricing data (actually or by specific identification in writing), in accordance with FAR 15.408, Table 15-2 (to include any information reasonably required to explain the subcontractor's estimating process such as the judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data, and the nature and amount of any contingencies included in the price), unless an exception under FAR 15.403-1 applies.

(b) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (a) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(c) In each subcontract that exceeds the threshold for submission of certified cost or pricing data at FAR 15.403-4, when entered into, the Contractor shall insert either --

(1) The substance of this clause, including this paragraph (c), if paragraph (a) of this clause requires submission of certified cost or pricing data for the subcontract; or

(2) The substance of the clause at FAR 52.215-13, Subcontractor Certified Cost or Pricing Data--Modifications.

CLAUSE I.16 - FAR 52.215-13 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA--MODIFICATIONS (OCT 2010)

(a) The requirements of paragraphs (b) and (c) of this clause shall --

(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of certified cost or pricing data at FAR 15.403-4; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of certified cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification

involving a pricing adjustment expected to exceed the threshold for submission of certified cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit certified cost or pricing data (actually or by specific identification in writing), in accordance with FAR 15.408, Table 15-2 (to include any information reasonably required to explain the subcontractor's estimating process such as the judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data, and the nature and amount of any contingencies included in the price), unless an exception under FAR 15.403-1 applies.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of certified cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

CLAUSE I.16A - FAR 52.215-14 INTEGRITY OF UNIT PRICES (OCT 2010)

(a) Any proposal submitted for the negotiation of prices for items of supplies shall distribute costs within contracts on a basis that ensures that unit prices are in proportion to the items' base cost (e.g., manufacturing or acquisition costs). Any method of distributing costs to line items that distorts unit prices shall not be used. For example, distributing costs equally among line items is not acceptable except when there is little or no variation in base cost. Nothing in this paragraph requires submission of certified cost or pricing data not otherwise required by law or regulation.

(b) When requested by the Contracting Officer, the Offeror/Contractor shall also identify those supplies that it will not manufacture or to which it will not contribute significant value.

(a) The Contractor shall insert the substance of this clause, less paragraph (b), in all subcontracts for other than: acquisitions at or below the simplified acquisition threshold in FAR Part 2; construction or architect-engineer services under FAR Part 36; utility services under FAR Part 41; services where supplies are not required; commercial items; and petroleum products.

CLAUSE I.16B- FAR 52.215-17 WAIVER OF FACILITIES CAPITAL COST OF MONEY (OCT 1997)

The Contractor did not include facilities capital cost of money as a proposed cost of this contract. Therefore, it is an unallowable cost under this contract.

CLAUSE I.16C - FAR 52.219-4 NOTICE OF PRICE EVALUATION FOR HUBZONE SMALL BUSINESS CONCERNS (OCT 2014)

(a) *Definitions. See* 13 CFR 125.6(e) for definitions of terms used in paragraph (d).

(b) *Evaluation preference.* (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except—

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference; and

(ii) Otherwise successful offers from small business concerns.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) When the two highest rated offerors are a HUBZone small business concern and a large business, and the evaluated offer of the HUBZone small business concern is equal to the evaluated offer of the large business after considering the price evaluation preference, award will be made to the HUBZone small business concern.

(c) *Waiver of evaluation preference.* A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraphs (d) and (e) of this clause do not apply if the offeror has waived the evaluation preference.

□ Offeror elects to waive the evaluation preference.

(d) *Agreement.* A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) *General construction.* (i) At least 15 percent of the cost of contract performance to be incurred for personnel will be spent on the prime contractor's employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel will be spent on the prime contractor's employees or on a combination of the prime contractor's employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel will be subcontracted to concerns that are not HUBZone small business concerns; or

(4) *Construction by special trade contractors.* (i) At least 25 percent of the cost of contract performance to be incurred for personnel will be spent on the prime contractor's employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel will be spent on the prime contractor's employees or on a combination of the prime contractor's employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel will be subcontracted to concerns that are not HUBZone small business concerns.

(e) A HUBZone joint venture agrees that the aggregate of the HUBZone small business concerns to the joint venture, not each concern separately, will perform the applicable percentage of work requirements.

(f)(1) When the total value of the contract exceeds $25,000, a HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business concern manufacturers.

(2) When the total value of the contract is equal to or less than $25,000, a HUBZone small business concern nonmanufacturer may provide end items manufactured by other than a HUBZone small business concern manufacturer provided the end items are produced or manufactured in the United States.

(3) Paragraphs (f)(1) and (f)(2) of this section do not apply in connection with construction or service contracts.

(g) *Notice.* The HUBZone small business offeror acknowledges that a prospective HUBZone awardee must be a HUBZone small business concern at the time of award of this contract. The HUBZone offeror shall provide the Contracting Officer a copy of the notice required by 13 CFR 126.501 if material changes occur before contract award that could affect its HUBZone eligibility. If the apparently successful HUBZone offeror is not

a HUBZone small business concern at the time of award of this contract, the Contracting Officer will proceed to award to the next otherwise successful HUBZone small business concern or other offeror.

(End of clause)

CLAUSE I.16D – FAR 52.215-23 LIMITATIONS ON PASS-THROUGH CHARGES (OCT 2009)

(a) Definitions. As used in this clause--

"Added value" means that the Contractor performs subcontract management functions that the Contracting Officer determines are a benefit to the Government (e.g., processing orders of parts or services, maintaining inventory, reducing delivery lead times, managing multiple sources for contract requirements, coordinating deliveries, performing quality assurance functions).

"Excessive pass-through charge," with respect to a Contractor or subcontractor that adds no or negligible value to a contract or subcontract, means a charge to the Government by the Contractor or subcontractor that is for indirect costs or profit/fee on work performed by a subcontractor (other than charges for the costs of managing subcontracts and any applicable indirect costs and associated profit/fee based on such costs).

"No or negligible value" means the Contractor or subcontractor cannot demonstrate to the Contracting Officer that its effort added value to the contract or subcontract in accomplishing the work performed under the contract (including task or delivery orders).

"Subcontract" means any contract, as defined in FAR 2.101, entered into by a subcontractor to furnish supplies or services for performance of the contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

"Subcontractor," as defined in FAR 44.101, means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Contractor or another subcontractor.

(b) General. The Government will not pay excessive pass-through charges. The Contracting Officer shall determine if excessive pass-through charges exist.

(c) Reporting. Required reporting of performance of work by the Contractor or a subcontractor. The Contractor shall notify the Contracting Officer in writing if—

(1) The Contractor changes the amount of subcontract effort after award such that it exceeds 70 percent of the total cost of work to be performed under the contract, task order, or delivery order. The notification shall identify the revised cost of the subcontract effort and shall include verification that the Contractor will provide added value; or

(2) Any subcontractor changes the amount of lower-tier subcontractor effort after award such that it exceeds 70 percent of the total cost of the work to be performed under its subcontract. The notification shall identify the revised cost of the subcontract effort and shall include verification that the subcontractor will provide added value as related to the work to be performed by the lower-tier subcontractor(s).

(d) Recovery of excessive pass-through charges. If the Contracting Officer determines that excessive pass-through charges exist;

(1) For other than fixed-price contracts, the excessive pass-through charges are unallowable in accordance with the provisions in FAR subpart 31.2; and

(2) For applicable DoD fixed-price contracts, as identified in 15.408(n)(2)(i)(B), the Government shall be entitled to a price reduction for the amount of excessive pass-through charges included in the contract price.

(e) Access to records.

(1) The Contracting Officer, or authorized representative, shall have the right to examine and audit all the Contractor's records (as defined at FAR 52.215-2(a)) necessary to determine whether the Contractor proposed, billed, or claimed excessive pass-through charges.

(2) For those subcontracts to which paragraph (f) of this clause applies, the Contracting Officer, or authorized representative, shall have the right to examine and audit all the subcontractor's records (as defined at FAR 52.215-2(a)) necessary to determine whether the subcontractor proposed, billed, or claimed excessive pass-through charges.

(f) Flowdown. The Contractor shall insert the substance of this clause, including this paragraph (f), in all cost-reimbursement subcontracts under this contract that exceed the simplified acquisition threshold, except if the contract is with DoD, then insert in all cost-reimbursement subcontracts and fixed-price subcontracts, except those identified in 15.408(n)(2)(i)(B)(2), that exceed the threshold for obtaining cost or pricing data in accordance with FAR 15.403-4.

CLAUSE I.17 - FAR 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2014)

(a) *Definitions.* As used in this contract—

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern—

(1) Means a small business concern—

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that—

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by—

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States; and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding $750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13.CFR 124.106) by individuals, who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

Veteran-owned small business concern means a small business concern—

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern—

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(b) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(c) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

(d)(1) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(2) The Contractor shall confirm that a subcontractor representing itself as a HUBZone small business concern is certified by SBA as a HUBZone small business concern by accessing the System for Award Management database or by contacting the SBA. Options for contacting the SBA include—

(i) HUBZone small business database search application Web page at *http://dsbs.sba.gov/dsbs/search/dsp_searchhubzone.cfm;* or *http://www.sba.gov/hubzone;*

(ii) In writing to the Director/HUB, U.S. Small Business Administration, 409 3rd Street, SW., Washington DC 20416; or

(iii) The SBA HUBZone Help Desk at *hubzone@sba.gov.*

(End of clause)

CLAUSE I.18 - FAR 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (OCT 2014)

(a) This clause does not apply to small business concerns.

(b) Definitions. As used in this clause—

Alaska Native Corporation (ANC) means any Regional Corporation, Village Corporation, Urban Corporation, or Group Corporation organized under the laws of the State of Alaska in accordance with the Alaska Native Claims Settlement Act, as amended (43 U.S.C. 1601, et seq.) and which is considered a minority and economically disadvantaged concern under the criteria at 43 U.S.C. 1626(e)(1). This definition also includes ANC direct and indirect subsidiary corporations, joint ventures, and partnerships that meet the requirements of 43 U.S.C. 1626(e)(2).

Commercial item means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

Commercial plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

Electronic Subcontracting Reporting System (eSRS) means the Governmentwide, electronic, web-based system for small business subcontracting program reporting. The eSRS is located at http://www.esrs.gov.

Indian tribe means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act (43 U.S.C.A. 1601 et seq.), that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs in accordance with 25 U.S.C. 1452(c). This definition also includes Indian-owned economic enterprises that meet the requirements of 25 U.S.C. 1452(e).

Individual contract plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

Master plan means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

Subcontract means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs. In accordance with 43 U.S.C. 1626:

(i) Subcontracts awarded to an ANC or Indian tribe shall be counted towards the subcontracting goals for small business and small disadvantaged business (SDB) concerns, regardless of the size or Small Business Administration certification status of the ANC or Indian tribe.

(ii) Where one or more subcontractors are in the subcontract tier between the prime contractor and the ANC or Indian tribe, the ANC or Indian tribe shall designate the appropriate contractor(s) to count the subcontract towards its small business and small disadvantaged business subcontracting goals.

(A) In most cases, the appropriate Contractor is the Contractor that awarded the subcontract to the ANC or Indian tribe.

(B) If the ANC or Indian tribe designates more than one Contractor to count the subcontract toward its goals, the ANC or Indian tribe shall designate only a portion of the total subcontract award to each Contractor. The sum of the amounts designated to various Contractors cannot exceed the total value of the subcontract.

(C) The ANC or Indian tribe shall give a copy of the written designation to the Contracting Officer, the prime Contractor, and the subcontractors in between the prime Contractor and the ANC or Indian tribe within 30 days of the date of the subcontract award.

(D) If the Contracting Officer does not receive a copy of the ANC's or the Indian tribe's written designation within 30 days of the subcontract award, the Contractor that awarded the subcontract to the ANC or Indian tribe will be considered the designated Contractor.

(2) A statement of—

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns (including ANC and Indian tribes);

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns (including ANCs and Indian tribes); and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the System for Award Management (SAM), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in SAM as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of SAM as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror in included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

(i) Small business concerns (including ANC and Indian tribes);

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns (including ANC and Indian tribes); and

(vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled “Utilization of Small Business Concerns” in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of $650,000 ($1.5 million for construction of any public facility) with further subcontracting possibilities to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will—

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit the Individual Subcontract Report (ISR) and/or the Summary Subcontract Report (SSR), in accordance with paragraph (l) of this clause using the Electronic Subcontracting Reporting System (eSRS) at http://www.esrs.gov. The reports shall provide information on subcontract awards to small business concerns (including ANCs and Indian tribes that are not small businesses), veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns (including ANCs and Indian tribes that have not been certified by the Small Business Administration as small disadvantaged businesses), women-owned small business concerns, and for NASA only, Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with this clause, or as provided in agency regulations;

(iv) Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using eSRS;

(v) Provide its prime contract number, its DUNS number, and the e-mail address of the offeror's official responsible for acknowledging receipt of or rejecting the ISRs, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their ISRs; and

(vi) Require that each subcontractor with a subcontracting plan provide the prime contract number, its own DUNS number, and the e-mail address of the subcontractor's official responsible for acknowledging receipt of or rejecting the ISRs, to its subcontractors with subcontracting plans.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (e.g., SAM), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $150,000, indicating—

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and, if not, why not;

(F) Whether women-owned small business concerns were solicited and, if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact—

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through—

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are

excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all “make-or-buy” decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the SAM database or by contacting SBA.

(5) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(6) For all competitive subcontracts over the simplified acquisition threshold in which a small business concern received a small business preference, upon determination of the successful subcontract offeror, the Contractor must inform each unsuccessful small business subcontract offeror in writing of the name and location of the apparent successful offeror prior to award of the contract.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided—

(1) The master plan has been approved,

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer, and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than

solely to the Government contract. Once the Contractor's commercial plan has been approved, the Government will not require another subcontracting plan from the same Contractor while the plan remains in effect, as long as the product or service being provided by the Contractor continues to meet the definition of a commercial item. A Contractor with a commercial plan shall comply with the reporting requirements stated in paragraph (d)(10) of this clause by submitting one SSR in eSRS for all contracts covered by its commercial plan. This report shall be acknowledged or rejected in eSRS by the Contracting Officer who approved the plan. This report shall be submitted within 30 days after the end of the Government's fiscal year.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) A contract may have no more than one plan. When a modification meets the criteria in 19.702 for a plan, or an option is exercised, the goals associated with the modification or option shall be added to those in the existing subcontract plan.

(j) Subcontracting plans are not required from subcontractors when the prime contract contains the clause at 52.212-5, Contract Terms and Conditions Required to Implement Statutes or Executive Orders—Commercial Items, or when the subcontractor provides a commercial item subject to the clause at 52.244-6, Subcontracts for Commercial Items, under a prime contract.

(k) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled “Utilization Of Small Business Concerns,” or (2) an approved plan required by this clause, shall be a material breach of the contract.

(l) The Contractor shall submit ISRs and SSRs using the web-based eSRS at http://www.esrs.gov. Purchases from a corporation, company, or subdivision that is an affiliate of the prime Contractor or subcontractor are not included in these reports. Subcontract award data reported by prime Contractors and subcontractors shall be limited to awards made to their immediate next-tier subcontractors. Credit cannot be taken for awards made to lower tier subcontractors, unless the Contractor or subcontractor has been designated to receive a small business or small disadvantaged business credit from an ANC or Indian tribe. Only subcontracts involving performance in the United States or its outlying areas should be included in these reports with the exception of subcontracts under a contract awarded by the State Department or any other agency that has statutory or regulatory authority to require subcontracting plans for subcontracts performed outside the United States and its outlying areas.

(1) ISR. This report is not required for commercial plans. The report is required for each contract containing an individual subcontract plan.

(i) The report shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the Contracting Officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period.

(ii) When a subcontracting plan contains separate goals for the basic contract and each option, as prescribed by FAR 19.704(c), the dollar goal inserted on this report shall be the sum of the base period through the current option; for example, for a report submitted after the second option is exercised, the dollar goal would be the sum of the goals for the basic contract, the first option, and the second option.

(iii) The authority to acknowledge receipt or reject the ISR resides—

(A) In the case of the prime Contractor, with the Contracting Officer; and

(B) In the case of a subcontract with a subcontracting plan, with the entity that awarded the subcontract.

(2) SSR. (i) Reports submitted under individual contract plans—

(A) This report encompasses all subcontracting under prime contracts and subcontracts with the awarding agency, regardless of the dollar value of the subcontracts.

(B) The report may be submitted on a corporate, company or subdivision (e.g. plant or division operating as a separate profit center) basis, unless otherwise directed by the agency.

(C) If a prime Contractor and/or subcontractor is performing work for more than one executive agency, a separate report shall be submitted to each executive agency covering only that agency's contracts, provided at least one of that agency's contracts is over $650,000 (over $1.5 million for construction of a public facility) and contains a subcontracting plan. For DoD, a consolidated report shall be submitted for all contracts awarded by military departments/agencies and/or subcontracts awarded by DoD prime Contractors. However, for construction and related maintenance and repair, a separate report shall be submitted for each DoD component.

(D) For DoD and NASA, the report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30. For civilian agencies, except NASA, it shall be submitted annually for the twelve month period ending September 30. Reports are due 30 days after the close of each reporting period.

(E) Subcontract awards that are related to work for more than one executive agency shall be appropriately allocated.

(F) The authority to acknowledge or reject SSRs in eSRS, including SSRs submitted by subcontractors with subcontracting plans, resides with the Government agency awarding the prime contracts unless stated otherwise in the contract.

(ii) Reports submitted under a commercial plan—

(A) The report shall include all subcontract awards under the commercial plan in effect during the Government's fiscal year.

(B) The report shall be submitted annually, within thirty days after the end of the Government's fiscal year.

(C) If a Contractor has a commercial plan and is performing work for more than one executive agency, the Contractor shall specify the percentage of dollars attributable to each agency from which contracts for commercial items were received.

(D) The authority to acknowledge or reject SSRs for commercial plans resides with the Contracting Officer who approved the commercial plan.

(End of clause)

CLAUSE I.19 - FAR 52.219-16 LIQUIDATED DAMAGES - SUBCONTRACTING PLAN (JAN 1999)

(a) "Failure to make a good faith effort to comply with the subcontracting plan," as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan.

If, at contract completion, or in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled, “Small Business Subcontracting Plan", the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter.

Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled, Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

CLAUSE I.20 - FAR 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (JUL 2013)

(a) *Definitions*. As used in this clause—

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is “not dominant in its field of operation” when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of

this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts—

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at *http://www.sba.gov/content/table-small-business-size-standards*.

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the representation required by paragraph (b) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it is, is not a small business concern under NAICS Code 541712 assigned to contract number DE-AC02-07CH11359.

(End of clause)

CLAUSE I.21 - FAR 52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

CLAUSE I.22 - FAR 52.222-3 CONVICT LABOR (JUN 2003)

(a) Except as provided in paragraph (b) of this clause, the Contractor shall not employ in the performance of this contract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.

(b) The Contractor is not prohibited from employing persons –

(1) On parole or probation to work at paid employment during the term of their sentence;

(2) Who have been pardoned or who have served their terms; or

(3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if –

(i) The worker is paid or is in an approved work training program on a voluntary basis;

(ii) Representatives of local union central bodies or similar labor union organizations have been consulted;

(iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;

(iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(i) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

CLAUSE I.23 - FAR 52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS -- OVERTIME COMPENSATION (MAY 2014)

(a) *Overtime requirements*. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) *Violation; liability for unpaid wages; liquidated damages*. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of $10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the Contract Work Hours and Safety Standards statute (found at 40 U.S.C. chapter 37).

(c) *Withholding for unpaid wages and liquidated damages*. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards statute.

(d) *Payrolls and basic records.*

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and

address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Construction Wage Rate Requirements statute.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) *Subcontracts*. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts may require or involve the employment of laborers and mechanics and require subcontractors to include these provisions in any such lower-tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

CLAUSE I.24 - FAR 52.222-11 SUBCONTRACTS (LABOR STANDARDS) (MAY 2014)

(a) *Definition*. "Construction, alteration or repair," as used in this clause means all types of work done by laborers and mechanics employed by the construction Contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation --

(1) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;

(2) Painting and decorating;

(3) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work;

(4) Transportation of materials and supplies between the site of the work within the meaning of paragraphs (a)(1)(i) and (ii) of the "site of the work" as defined in the FAR clause at 52.222-6, Construction Wage Rate Requirements of this contract, and a facility which is dedicated to the construction of the building or work and is deemed part of the site of the

work within the meaning of paragraph (2) of the "site of the work" definition; and

(5) Transportation of portions of the building or work between a secondary site where a significant portion of the building or work is constructed, which is part of the "site of the work" definition in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Construction Wage Rate Requirements, and the physical place or places where the building or work will remain (paragraph (a)(1)(i) of the FAR clause at 52.222-6, in the "site of the work" definition).

(b) The Contractor or subcontractor shall insert in any subcontracts for construction, alterations and repairs within the United States the clauses entitled—

(1) Construction Wage Rate Requirements;

(2) Contract Work Hours and Safety Standards -- Overtime Compensation (if the clause is included in this contract);

(3) Apprentices and Trainees;

(4) Payrolls and Basic Records;

(5) Compliance with Copeland Act Requirements;

(6) Withholding of Funds;

(7) Subcontracts (Labor Standards);

(8) Contract Termination – Debarment;

(9) Disputes Concerning Labor Standards;

(10) Compliance with Construction Wage Rate Requirements and Related Regulations; and

(11) Certification of Eligibility.

(c) The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor performing construction within the United States with all the contract clauses cited in paragraph (b).

(d) (1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Standard Form (SF) 1413, Statement and

Acknowledgment, for each subcontract for construction within the United States, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (b) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(e) The Contractor shall insert the substance of this clause, including this paragraph (e) in all subcontracts for construction within the United States.

CLAUSE I.25 - FAR 52.222-21 PROHIBITION OF SEGREGATED FACILITIES (APR 2015)

(a) *Definitions.* As used in this clause—

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at *www.dol.gov/ofccp/LGBT/LGBT_FAQs.html*.

Segregated facilities means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at *www.dol.gov/ofccp/LGBT/LGBT_FAQs.html*.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

CLAUSE I.26 - FAR 52.222-26 EQUAL OPPORTUNITY (APR 2015)

(a) *Definitions.* As used in this clause—

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at *www.dol.gov/ofccp/LGBT/LGBT_FAQs.html*.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at *www.dol.gov/ofccp/LGBT/LGBT_FAQs.html*.

United States means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b)(1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of $10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a particular religion to perform work connected with the carrying on of the Contractor's activities (41 CFR 60-1.5).

(c)(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; *provided*, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(d) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

CLAUSE I.27 - FAR 52.222-29 NOTIFICATION OF VISA DENIAL (APR 2015)

(a) *Definitions.* As used in this clause—

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at *www.dol.gov/ofccp/LGBT/LGBT_FAQs.html*.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at *www.dol.gov/ofccp/LGBT/LGBT_FAQs.html*.

(b) *Requirement to notify.* (1) It is a violation of Executive Order 11246 for a Contractor to refuse to employ any applicant or not to assign any person hired in the United States, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, or Wake Island, on the basis that the individual's race, color, religion, sex, sexual orientation, gender identity, or national origin is not compatible with the policies of the country where or for whom the work will be performed (41 CFR 60-1.10).

(2) The Contractor shall notify the U.S. Department of State, Assistant Secretary, Bureau of Political-Military Affairs (PM), 2201 C Street NW., Room 6212, Washington, DC 20520, and the U.S. Department of Labor, Deputy Assistant Secretary for Federal Contract Compliance, when it has knowledge of any employee or potential employee being denied an entry visa to a country where this contract will be performed, and it believes the denial is attributable to the race, color, religion, sex, sexual orientation, gender identity, or national origin of the employee or potential employee.

(End of clause)

CLAUSE I.28 - FAR 52.222-35 EQUAL OPPORTUNITY FOR VETERANS (JULY 2014)

(a) *Definitions.* As used in this clause—

"Active duty wartime or campaign badge veteran," "Armed Forces service medal veteran," "disabled veteran," "protected veteran," "qualified disabled veteran," and "recently separated veteran" have the meanings given at FAR 22.1301.

(b) *Equal opportunity clause.* The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

(c) *Subcontracts.* The Contractor shall insert the terms of this clause in subcontracts of $100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

CLAUSE I.29 - FAR 52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JULY 2014)

(a) *Equal opportunity clause.* The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.

(b) *Subcontracts.* The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of $15,000 unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

CLAUSE I.30 - FAR 52.222-37 EMPLOYMENT REPORTS ON VETERANS (JULY 2014)

(a) Definitions. As used in this clause, "Armed Forces service medal veteran," "disabled veteran," "active duty wartime or campaign badge veteran," and "recently separated veteran," have the meanings given in FAR 22.1301.

(b) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on—

(1) The total number of employees in the contractor's workforce, by job category and hiring location, who are disabled veterans, other protected veterans (*i.e.*, active duty wartime or campaign badge veterans), Armed Forces service medal veterans, and recently separated veterans;

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of disabled veterans, other protected veterans (*i.e.*, active duty wartime or campaign badge veterans), Armed Forces service medal veterans, and recently separated veterans; and

(3) The maximum number and minimum number of employees of the Contractor or subcontractor at each hiring location during the period covered by the report.

(c) The Contractor shall report the above items by completing the Form VETS-100A, entitled "Federal Contractor Veterans' Employment Report (VETS-100A Report)."

(d) The Contractor shall submit VETS-100A Reports no later than September 30 of each year.

(e) The employment activity report required by paragraphs (b)(2) and (b)(3) of this clause shall reflect total new hires, and maximum and minimum number of employees, during the most recent 12-month period preceding the ending date selected for the report. Contractors may select an ending date—

(1) As of the end of any pay period between July 1 and August 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(f) The number of veterans reported must be based on data known to the contractor when completing the VETS-100A. The contractor's knowledge of veterans status may be obtained in a variety of ways, including an invitation to applicants to self-identify (in accordance with 41 CFR 60-300.42), voluntary self-disclosure by employees, or actual knowledge of veteran status by the contractor. This paragraph does not relieve an employer of liability for discrimination under 38 U.S.C. 4212.

(g) The Contractor shall insert the terms of this clause in subcontracts of $100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of clause)

CLAUSE I.30A –FAR 52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT (DEC 2010)

(a) During the term of this contract, the Contractor shall post an employee notice, of such size and in such form, and containing such content as prescribed by the Secretary of Labor, in conspicuous places in and about its plants and offices where employees covered by the National Labor Relations Act engage in activities relating to the performance of the contract, including all places where notices to employees are customarily posted both physically and electronically, in the languages employees speak, in accordance with 29 CFR 471.2(d) and (f).

(1) Physical posting of the employee notice shall be in conspicuous places in and about the Contractor's plants and offices so that the notice is prominent and readily seen by employees who are covered by the National Labor Relations Act and engage in activities related to the performance of the contract.

(2) If the Contractor customarily posts notices to employees electronically, then the Contractor shall also post the required notice electronically by displaying prominently, on any Web site that is maintained by the Contractor and is customarily used for notices to employees about terms and conditions of employment, a link to the Department of Labor's Web site that contains the full text of the poster. The link to the Department's Web site, as referenced in (b)(3) of this section, must read, "Important Notice about Employee Rights to Organize and Bargain Collectively with Their Employers".

(b) This required employee notice, printed by the Department of Labor, may be –

(1) Obtained from the Division of Interpretations and Standards, office of Labor-Management Standards, U. S. Department of Labor, 200 Constitution Avenue, NW., Room N-5609, Washington, DC 20210, (202) 693-0123, or from any field office of the Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Provided by the Federal contracting agency if requested;

(3) Downloaded from the Office of Labor-Management Standards Web site at http://www.doe.gov/olms/regs/compliance/EO13496.thm; or

(4) Reproduced and used as exact duplicate copies of the Department of Labor's official poster.

(c) The required text of the employee notice referred to in this clause is located at Appendix A, Subpart A, 29 CFR Part 471.

(d) The Contractor shall comply with all provisions of the employee notice and related rules, regulations, and orders of the Secretary of Labor.

(e) In the event that the Contractor does not comply with the requirements set forth in paragraphs (a) through (d) of this clause, this contract may be terminated or suspended in whole or in part, and the Contractor may be suspended or debarred in accordance with 29 CFR 471.14 and subpart 9.4. Such other sanctions or remedies may be imposed as are provided by 29 CFR part 471, which implements Executive Order 13496 or as otherwise provided by law.

(f) Subcontracts.

(1) The Contractor shall include the substance of this clause, including this paragraph (f), in every subcontract that exceeds $10,000 and will be performed wholly or partially in the United States, unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 3 of Executive Order 13496 of January 30, 2009, so that such provisions will be binding upon each subcontractor.

(2) The Contractor shall not procure supplies or services in a way designed to avoid the applicability of Executive Order 13496 or this clause.

(3) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance.

(4) However, if the Contractor becomes involved in litigation with a subcontractor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

CLAUSE I.30B - FAR 52.222-50 COMBATING TRAFFICKING IN PERSONS (MAR 2015)

(a) *Definitions.* As used in this clause—

Commercially available off-the-shelf (COTS) item means—

(1) Any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

Coercion means—

(1) Threats of serious harm to or physical restraint against any person;

(2) Any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or

(3) The abuse or threatened abuse of the legal process.

Commercial sex act means any sex act on account of which anything of value is given to or received by any person.

Debt bondage means the status or condition of a debtor arising from a pledge by the debtor of his or her personal services or of those of a person under his or her control as a security for debt, if the value of those services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of those services are not respectively limited and defined.

Employee means an employee of the Contractor directly engaged in the performance of work under the contract who has other than a minimal impact or involvement in contract performance.

Forced labor means knowingly providing or obtaining the labor or services of a person—

(1) By threats of serious harm to, or physical restraint against, that person or another person;

(2) By means of any scheme, plan, or pattern intended to cause the person to believe that, if the person did not perform such labor or services, that person or another person would suffer serious harm or physical restraint; or

(3) By means of the abuse or threatened abuse of law or the legal process.

Involuntary servitude includes a condition of servitude induced by means of—

(1) Any scheme, plan, or pattern intended to cause a person to believe that, if the person did not enter into or continue in such conditions, that person or another person would suffer serious harm or physical restraint; or

(2) The abuse or threatened abuse of the legal process.

Severe forms of trafficking in persons means—

(1) Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or

(2) The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

Sex trafficking means the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act.

Subcontract means any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract.

Subcontractor means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or another subcontractor.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) *Policy*. The United States Government has adopted a policy prohibiting trafficking in persons including the trafficking-related activities of this clause. Contractors, contractor employees, and their agents shall not—

(1) Engage in severe forms of trafficking in persons during the period of performance of the contract;

(2) Procure commercial sex acts during the period of performance of the contract;

(3) Use forced labor in the performance of the contract;

(4) Destroy, conceal, confiscate, or otherwise deny access by an employee to the employee's identity or immigration documents, such as passports or drivers' licenses, regardless of issuing authority;

(5)(i) Use misleading or fraudulent practices during the recruitment of employees or offering of employment, such as failing to disclose, in a format and language accessible to the worker, basic information or making material misrepresentations during the recruitment of employees regarding the key terms and conditions of employment,

including wages and fringe benefits, the location of work, the living conditions, housing and associated costs (if employer or agent provided or arranged), any significant cost to be charged to the employee, and, if applicable, the hazardous nature of the work;

(ii) Use recruiters that do not comply with local labor laws of the country in which the recruiting takes place;

(6) Charge employees recruitment fees;

(7)(i) Fail to provide return transportation or pay for the cost of return transportation upon the end of employment—

(A) For an employee who is not a national of the country in which the work is taking place and who was brought into that country for the purpose of working on a U.S. Government contract or subcontract (for portions of contracts performed outside the United States); or

(B) For an employee who is not a United States national and who was brought into the United States for the purpose of working on a U.S. Government contract or subcontract, if the payment of such costs is required under existing temporary worker programs or pursuant to a written agreement with the employee (for portions of contracts performed inside the United States); except that—

(ii) The requirements of paragraphs (b)(7)(i) of this clause shall not apply to an employee who is—

(A) Legally permitted to remain in the country of employment and who chooses to do so; or

(B) Exempted by an authorized official of the contracting agency from the requirement to provide return transportation or pay for the cost of return transportation;

(iii) The requirements of paragraph (b)(7)(i) of this clause are modified for a victim of trafficking in persons who is seeking victim services or legal redress in the country of employment, or for a witness in an enforcement action related to trafficking in persons. The contractor shall provide the return transportation or pay the cost of return transportation in a way that does not obstruct the victim services, legal redress, or witness activity. For example, the contractor shall not only offer return transportation to a witness at a time when the witness is still needed to testify. This paragraph does not apply when the exemptions at paragraph (b)(7)(ii) of this clause apply.

(8) Provide or arrange housing that fails to meet the host country housing and safety standards; or

(9) If required by law or contract, fail to provide an employment contract, recruitment agreement, or other required work document in writing. Such written work document shall be in a language the employee understands. If the employee must relocate

to perform the work, the work document shall be provided to the employee at least five days prior to the employee relocating. The employee's work document shall include, but is not limited to, details about work description, wages, prohibition on charging recruitment fees, work location(s), living accommodations and associated costs, time off, roundtrip transportation arrangements, grievance process, and the content of applicable laws and regulations that prohibit trafficking in persons.

(c) *Contractor requirements.* The Contractor shall—

(1) Notify its employees and agents of—

(i) The United States Government's policy prohibiting trafficking in persons, described in paragraph (b) of this clause; and

(ii) The actions that will be taken against employees or agents for violations of this policy. Such actions for employees may include, but are not limited to, removal from the contract, reduction in benefits, or termination of employment; and

(2) Take appropriate action, up to and including termination, against employees, agents, or subcontractors that violate the policy in paragraph (b) of this clause.

(d) *Notification.* (1) The Contractor shall inform the Contracting Officer and the agency Inspector General immediately of—

(i) Any credible information it receives from any source (including host country law enforcement) that alleges a Contractor employee, subcontractor, subcontractor employee, or their agent has engaged in conduct that violates the policy in paragraph (b) of this clause (see also 18 U.S.C. 1351, Fraud in Foreign Labor Contracting, and 52.203-13(b)(3)(i)(A), if that clause is included in the solicitation or contract, which requires disclosure to the agency Office of the Inspector General when the Contractor has credible evidence of fraud); and

(ii) Any actions taken against a Contractor employee, subcontractor, subcontractor employee, or their agent pursuant to this clause.

(2) If the allegation may be associated with more than one contract, the Contractor shall inform the contracting officer for the contract with the highest dollar value.

(e) *Remedies.* In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (c), (d), (g), (h), or (i) of this clause may result in—

(1) Requiring the Contractor to remove a Contractor employee or employees from the performance of the contract;

(2) Requiring the Contractor to terminate a subcontract;

(3) Suspension of contract payments until the Contractor has taken appropriate remedial action;

(4) Loss of award fee, consistent with the award fee plan, for the performance period in which the Government determined Contractor non-compliance;

(5) Declining to exercise available options under the contract;

(6) Termination of the contract for default or cause, in accordance with the termination clause of this contract; or

(7) Suspension or debarment.

(f) *Mitigating and aggravating factors.* When determining remedies, the Contracting Officer may consider the following:

(1) *Mitigating factors.* The Contractor had a Trafficking in Persons compliance plan or an awareness program at the time of the violation, was in compliance with the plan, and has taken appropriate remedial actions for the violation, that may include reparation to victims for such violations.

(2) *Aggravating factors.* The Contractor failed to abate an alleged violation or enforce the requirements of a compliance plan, when directed by the Contracting Officer to do so.

(g) *Full cooperation.* (1) The Contractor shall, at a minimum—

(i) Disclose to the agency Inspector General information sufficient to identify the nature and extent of an offense and the individuals responsible for the conduct;

(ii) Provide timely and complete responses to Government auditors' and investigators' requests for documents;

(iii) Cooperate fully in providing reasonable access to its facilities and staff (both inside and outside the U.S.) to allow contracting agencies and other responsible Federal agencies to conduct audits, investigations, or other actions to ascertain compliance with the Trafficking Victims Protection Act of 2000 (22 U.S.C. chapter 78), E.O. 13627, or any other applicable law or regulation establishing restrictions on trafficking in persons, the procurement of commercial sex acts, or the use of forced labor; and

(iv) Protect all employees suspected of being victims of or witnesses to prohibited activities, prior to returning to the country from which the employee was recruited, and shall not prevent or hinder the ability of these employees from cooperating fully with Government authorities.

(2) The requirement for full cooperation does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not—

(i) Require the Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine;

(ii) Require any officer, director, owner, employee, or agent of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; or

(iii) Restrict the Contractor from—

(A) Conducting an internal investigation; or

(B) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.

(h) *Compliance plan.* (1) This paragraph (h) applies to any portion of the contract that—

(i) Is for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States; and

(ii) Has an estimated value that exceeds $500,000.

(2) The Contractor shall maintain a compliance plan during the performance of the contract that is appropriate—

(i) To the size and complexity of the contract; and

(ii) To the nature and scope of the activities to be performed for the Government, including the number of non-United States citizens expected to be employed and the risk that the contract or subcontract will involve services or supplies susceptible to trafficking in persons.

(3) *Minimum requirements.* The compliance plan must include, at a minimum, the following:

(i) An awareness program to inform contractor employees about the Government's policy prohibiting trafficking-related activities described in paragraph (b) of this clause, the activities prohibited, and the actions that will be taken against the employee for violations. Additional information about Trafficking in Persons and examples of awareness programs can be found at the Web site for the Department of State's Office to Monitor and Combat Trafficking in Persons at *http://www.state.gov/j/tip/.*

(ii) A process for employees to report, without fear of retaliation, activity inconsistent with the policy prohibiting trafficking in persons, including a means to make available to all employees the hotline phone number of the Global Human Trafficking Hotline at 1-844-888-FREE and its email address at *help@befree.org.*

(iii) A recruitment and wage plan that only permits the use of recruitment companies with trained employees, prohibits charging recruitment fees to the employee, and ensures that wages meet applicable host-country legal requirements or explains any variance.

(iv) A housing plan, if the Contractor or subcontractor intends to provide or arrange housing, that ensures that the housing meets host-country housing and safety standards.

(v) Procedures to prevent agents and subcontractors at any tier and at any dollar value from engaging in trafficking in persons (including activities in paragraph (b) of this clause) and to monitor, detect, and terminate any agents, subcontracts, or subcontractor employees that have engaged in such activities.

(4) *Posting.* (i) The Contractor shall post the relevant contents of the compliance plan, no later than the initiation of contract performance, at the workplace (unless the work is to be performed in the field or not in a fixed location) and on the Contractor's Web site (if one is maintained). If posting at the workplace or on the Web site is impracticable, the Contractor shall provide the relevant contents of the compliance plan to each worker in writing.

(ii) The Contractor shall provide the compliance plan to the Contracting Officer upon request.

(5) *Certification.* Annually after receiving an award, the Contractor shall submit a certification to the Contracting Officer that—

(i) It has implemented a compliance plan to prevent any prohibited activities identified at paragraph (b) of this clause and to monitor, detect, and terminate any agent, subcontract or subcontractor employee engaging in prohibited activities; and

(ii) After having conducted due diligence, either—

(A) To the best of the Contractor's knowledge and belief, neither it nor any of its agents, subcontractors, or their agents is engaged in any such activities; or

(B) If abuses relating to any of the prohibited activities identified in paragraph (b) of this clause have been found, the Contractor or subcontractor has taken the appropriate remedial and referral actions.

(i) *Subcontracts.* (1) The Contractor shall include the substance of this clause, including this paragraph (i), in all subcontracts and in all contracts with agents. The requirements in paragraph (h) of this clause apply only to any portion of the subcontract that—

(A) Is for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States; and

(B) Has an estimated value that exceeds $500,000.

(2) If any subcontractor is required by this clause to submit a certification, the Contractor shall require submission prior to the award of the subcontract and annually thereafter. The certification shall cover the items in paragraph (h)(5) of this clause.

(End of clause)

CLAUSE I.30C – FAR 52.222-54 EMPLOYMENT ELIGIBILITY VERIFICATION (AUG 2013)

(a) *Definitions.* As used in this clause—

Commercially available off-the-shelf (COTS) item —

(1) Means any item of supply that is—

(i) A commercial item (as defined in paragraph (1) of the definition at 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products. Per 46 CFR 525.1(c)(2), "bulk cargo" means cargo that is loaded and carried in bulk onboard ship without mark or count, in a loose unpackaged form, having homogenous characteristics. Bulk cargo loaded into intermodal equipment, except LASH or Seabee barges, is subject to mark and count and, therefore, ceases to be bulk cargo.

Employee assigned to the contract means an employee who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), who is directly performing work, in the United States, under a contract that is required to include the clause prescribed at 22.1803. An employee is not considered to be directly performing work under a contract if the employee—

(1) Normally performs support work, such as indirect or overhead functions; and

(2) Does not perform any substantial duties applicable to the contract.

Subcontract means any contract, as defined in 2.101, entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

Subcontractor means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Contractor or another subcontractor.

United States, as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, the Commonwealth of the Northern Mariana Islands and the U.S. Virgin Islands.

(b) *Enrollment and verification requirements.* (1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall—

(i) *Enroll.* Enroll as a Federal Contractor in the E-Verify program within 30 calendar days of contract award;

(ii) *Verify all new employees.* Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); and

(iii) *Verify employees assigned to the contract.* For each employee assigned to the contract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee's assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of—

(i) *All new employees.* (A) *Enrolled 90 calendar days or more.* The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(B) *Enrolled less than 90 calendar days.* Within 90 calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(ii) *Employees assigned to the contract.* For each employee assigned to the contract, the Contractor shall initiate verification within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(3) If the Contractor is an institution of higher education (as defined at 20 U.S.C. 1001(a)); a State or local government or the government of a Federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract, whether existing employees or new hires. The

Contractor shall follow the applicable verification requirements at (b)(1) or (b)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.

(4) *Option to verify employment eligibility of all employees.* The Contractor may elect to verify all existing employees hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), within 180 calendar days of—

(i) Enrollment in the E-Verify program; or

(ii) Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding (MOU).

(5) The Contractor shall comply, for the period of performance of this contract, with the requirements of the E-Verify program MOU.

(i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor will be referred to a suspension or debarment official.

(ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.

(c) *Web site.* Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: *http://www.dhs.gov/E-Verify*.

(d) *Individuals previously verified.* The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee—

(1) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;

(2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or

(3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD)-12, Policy for a Common Identification Standard for Federal Employees and Contractors.

(e) *Subcontracts.* The Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for identification of the parties), in each subcontract that—

(1) *Is for* —(i) Commercial or noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or

(ii) Construction;

(2) Has a value of more than $3,000; and

(3) Includes work performed in the United States.

(End of clause)

CLAUSE I.30D - FAR 52.223-2 AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS (SEP 2013)

(a) In the performance of this contract, the contractor shall make maximum use of biobased products that are United States Department of Agriculture (USDA)-designated items unless—

(1) The product cannot be acquired—

(i) Competitively within a time frame providing for compliance with the contract performance schedule;

(ii) Meeting contract performance requirements; or

(iii) At a reasonable price.

(2) The product is to be used in an application covered by a USDA categorical exemption (see 7 CFR 3201.3(e)). For example, all USDA-designated items are exempt from the preferred procurement requirement for the following:

(i) Spacecraft system and launch support equipment.

(ii) Military equipment, *i.e.* , a product or system designed or procured for combat or combat-related missions.

(b) Information about this requirement and these products is available at *http://www.biopreferred.gov.*

(c) In the performance of this contract, the Contractor shall—

(1) Report to *http://www.sam.gov*, with a copy to the Contracting Officer, on the product types and dollar value of any USDA-designated biobased products purchased by the Contractor during the previous Government fiscal year, between October 1 and September 30; and

(2) Submit this report no later than—

(i) October 31 of each year during contract performance; and

(ii) At the end of contract performance.

(End of clause)

CLAUSE I.31 - FAR 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997) (ALTERNATE I) (JULY 1995)

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material *(If none, insert "None")*	Identification No.
None	

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items.
Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to-

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in paragraph (b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS's in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

CLAUSE I.32 - FAR 52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (MAY 2011) (ALTERNATE I) (MAY 2011)

(a) Definitions. As used in this clause—

“Toxic chemical” means a chemical or chemical category in listed in 40 CFR 372.65.

(b) Federal facilities are required to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050), and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(c) The Contractor shall provide all information needed by the Federal facility to comply with the following:

(1) The emergency planning reporting requirements of Section 302 of EPCRA.

(2) The emergency notice requirements of Section 304 of EPCRA

(3) The list of Material Safety Data Sheets required by Section 311 of EPCRA

(4) The emergency and hazardous chemical inventory forms of Section 312 of EPCRA

(5) The toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA

(6) The toxic chemical and hazardous substance release and use reduction goals of section 2(e) of Executive Order 13423 and of Executive Order 13514.

(7) The environmental management system as described in section 3(b) of E.O. 13423 and 2(j) of E.O. 13514.

CLAUSE I.33 - FAR 52.223-7 NOTICE OF RADIOACTIVE MATERIALS (JAN 1997)

(a) The Contractor shall notify the Contracting Officer or designee, in writing, 30 days prior to the delivery of, or prior to completion of any servicing required by this contract of, items containing either

(1) radioactive material requiring specific licensing under the regulations issued pursuant to the Atomic Energy Act of 1954, as amended, as set forth in Title 10 of the Code of Federal Regulations, in effect on the date of this contract, or

(2) other radioactive material not requiring specific licensing in which the specific activity is greater than 0.002 microcuries per gram or the activity per item equals or exceeds 0.01 microcuries.

Such notice shall specify the part or parts of the items which contain radioactive materials, a description of the materials, the name and activity of the isotope, the manufacturer of the materials, and any other information known to the Contractor which will put users of the items on notice as to the hazards involved (OMB No. 9000-0107).

(b) If there has been no change affecting the quantity of activity, or the characteristics and composition of the radioactive material from deliveries under this contract or prior contracts, the Contractor may request that the Contracting Officer or designee waive the notice requirement in paragraph (a) of this clause. Any such request shall --

(1) Be submitted in writing;

(2) State that the quantity of activity, characteristics, and composition of the radioactive material have not changed; and

(3) Cite the contract number on which the prior notification was submitted and the contracting office to which it was submitted.

(c) All items, parts, or subassemblies which contain radioactive materials in which the specific activity is greater than 0.002 microcuries per gram or activity per item equals or exceeds 0.01 microcuries, and all containers in which such items, parts or subassemblies are delivered to the Government shall be clearly marked and labeled as required by the latest revision of MIL-STD 129 in effect on the date of the contract.

(d) This clause, including this paragraph (d), shall be inserted in all subcontracts for radioactive materials meeting the criteria in paragraph (a) of this clause.

CLAUSE I.34 – FAR 52.223-9 ESTIMATE OF EPRCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED ITEMS (MAY 2008)

(a) *Definitions.* As used in this clause—

Postconsumer material means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material."

Recovered material means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material content; and

(2) Submit this estimate to Rick Hersemann, 630-840-4122, rick.hersemann@ch.doe.gov.

(End of clause)

CLAUSE I.35 - FAR 52.223-10 WASTE REDUCTION PROGRAM (MAY 2011)

(a) Definitions. As used in this clause—

"Recycling" means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion.

"Waste prevention" means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

"Waste reduction" means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products.

(b) Consistent with the requirements of section 3(e) of Executive Order 13423, the Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract.

CLAUSE I.36 - FAR 52.223-11 OZONE-DEPLETING SUBSTANCES (MAY 2001)

(a) *Definition*. "Ozone-depleting substance," as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as-

(1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or

(2) Class II, including, but not limited to, hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

Warning

Contains (or manufactured with, if applicable) *_____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

* The Contractor shall insert the name of the substance(s).

CLAUSE I.37 - FAR 52.223-12 REFRIGERATION EQUIPMENT AND AIR CONDITIONERS (MAY 1995)

The Contractor shall comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act (42 U.S.C. 7671g and 7671h) as each or both apply to this contract.

CLAUSE I.37A - FAR 52.223-13 ACQUISITION OF EPEAT-REGISTERED IMAGING EQUIPMENT (JUN 2014)

(a) *Definitions.* As used in this clause—

Imaging equipment means the following products:

(1) *Copier*—A commercially available imaging product with a sole function of the production of hard copy duplicates from graphic hard-copy originals. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as copiers or upgradeable digital copiers (UDCs).

(2) *Digital duplicator*—A commercially available imaging product that is sold in the market as a fully automated duplicator system through the method of stencil duplicating with digital reproduction functionality. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as digital duplicators.

(3) *Facsimile machine (fax machine)*—A commercially available imaging product whose primary functions are scanning hard-copy originals for electronic transmission to remote units and receiving similar electronic transmissions to produce hard-copy output. Electronic transmission is primarily over a public telephone system but also may be via computer network or the Internet. The product also may be capable of producing hard copy duplicates. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as fax machines.

(4) *Mailing machine*—A commercially available imaging product that serves to print postage onto mail pieces. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as mailing machines.

(5) *Multifunction device (MFD)*—A commercially available imaging product, which is a physically integrated device or a combination of functionally integrated components, that performs two or more of the core functions of copying, printing, scanning, or faxing. The copy functionality as addressed in this definition is considered to be distinct from single-sheet convenience copying offered by fax machines. The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as MFDs or multifunction products.

(6) *Printer*—A commercially available imaging product that serves as a hard-copy output device and is capable of receiving information from single-user or networked computers, or other input devices (*e.g.*, digital cameras). The unit is capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as printers, including printers that can be upgraded into MFDs in the field.

(7) *Scanner*—A commercially available imaging product that functions as an electro-optical device for converting information into electronic images that can be stored, edited, converted, or transmitted, primarily in a personal computing environment. The unit is

capable of being powered from a wall outlet or from a data or network connection. This definition is intended to cover products that are marketed as scanners.

(b) Under this contract, the Contractor shall deliver, furnish for Government use, or furnish for Contractor use at a Federally controlled facility, only imaging equipment that, at the time of submission of proposals and at the time of award, was EPEAT® bronze-registered or higher.

(c) For information about EPEAT®, see *www.epa.gov/epeat.*

(End of clause)

CLAUSE I.37B - FAR 52.223-14 ACQUISITION OF EPEAT-REGISTERED TELEVISIONS (JUN 2014)

(a) *Definitions.* As used in this clause—

Television or *TV* means a commercially available electronic product designed primarily for the reception and display of audiovisual signals received from terrestrial, cable, satellite, Internet Protocol TV (IPTV), or other digital or analog sources. A TV consists of a tuner/receiver and a display encased in a single enclosure. The product usually relies upon a cathode-ray tube (CRT), liquid crystal display (LCD), plasma display, or other display technology. Televisions with computer capability (*e.g.*, computer input port) may be considered to be a TV as long as they are marketed and sold to consumers primarily as televisions.

(b) Under this contract, the Contractor shall deliver, furnish for Government use, or furnish for Contractor use at a Federally controlled facility, only televisions that, at the time of submission of proposals and at the time of award, were EPEAT® bronze-registered or higher.

(c) For information about EPEAT®, see *www.epa.gov/epeat.*

(End of clause)

CLAUSE I.38 - RESERVED

CLAUSE I.38A – FAR 52.223-15 ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS (DEC 2007)

(a) *Definition.* As used in this clause--

"Energy-efficient product"—

(1) Means a product that—

(i) Meets Department of Energy and Environmental Protection Agency criteria for use of the Energy Star trademark label; or

(ii) Is in the upper 25 percent of efficiency for all similar products as designated by the Department of Energy's Federal Energy Management Program.

(2) The term "product" does not include any energy-consuming product or system designed or procured for combat or combat-related missions (42 U.S.C. 8259b).

(b) The Contractor shall ensure that energy-consuming products are energy efficient products (*i.e.*, ENERGY STAR® products or FEMP-designated products) at the time of contract award, for products that are—

(1) Delivered;

(2) Acquired by the Contractor for use in performing services at a Federally-controlled facility;

(3) Furnished by the Contractor for use by the Government; or

(4) Specified in the design of a building or work, or incorporated during its construction, renovation, or maintenance.

(c) The requirements of paragraph (b) apply to the Contractor (including any subcontractor) unless—

(1) The energy-consuming product is not listed in the ENERGY STAR® Program or FEMP; or

(2) Otherwise approved in writing by the Contracting Officer.

(d) Information about these products is available for—

(1) ENERGY STAR® at http://www.energystar.gov/products; and

(2) FEMP at http://www1.eere.energy.gov/femp/procurement/eep_requirements.html.

CLAUSE I.38B – FAR 52.223-16 ACQUISITION OF EPEAT-REGISTERED PERSONAL COMPUTER PRODUCTS (JUN 2014)

(a) *Definitions.* As used in this clause—

Computer means a device that performs logical operations and processes data. Computers are composed of, at a minimum:

(1) A central processing unit (CPU) to perform operations;

(2) User input devices such as a keyboard, mouse, digitizer, or game controller; and

(3) A computer display screen to output information. Computers include both stationary and portable units, including desktop computers, integrated desktop computers, notebook computers, thin clients, and workstations. Although computers must be capable of using input devices and computer displays, as noted in (2) and (3) above, computer systems do not need to include these devices on shipment to meet this definition. This definition does not include server computers, gaming consoles, mobile telephones, portable hand-held calculators, portable digital assistants (PDAs), MP3 players, or any other mobile computing device with displays less than 4 inches, measured diagonally.

Computer display means a display screen and its associated electronics encased in a single housing or within the computer housing (*e.g.*, notebook or integrated desktop computer) that is capable of displaying output information from a computer via one or more inputs such as a VGA, DVI, USB, DisplayPort, and/or IEEE 1394-2008™, Standard for High Performance Serial Bus. Examples of computer display technologies are the cathode-ray tube (CRT) and liquid crystal display (LCD).

Desktop computer means a computer where the main unit is intended to be located in a permanent location, often on a desk or on the floor. Desktops are not designed for portability and utilize an external computer display, keyboard, and mouse. Desktops are designed for a broad range of home and office applications.

Integrated desktop computer means a desktop system in which the computer and computer display function as a single unit that receives its AC power through a single cable. Integrated desktop computers come in one of two possible forms:

(1) A system where the computer display and computer are physically combined into a single unit; or

(2) A system packaged as a single system where the computer display is separate but is connected to the main chassis by a DC power cord and both the computer and computer display are powered from a single power supply. As a subset of desktop computers, integrated desktop computers are typically designed to provide similar functionality as desktop systems.

Notebook computer means a computer designed specifically for portability and to be operated for extended periods of time either with or without a direct connection to an AC power source. Notebooks must utilize an integrated computer display and be capable of operation off of an integrated battery or other portable power source. In addition, most notebooks use an external power supply and have an integrated keyboard and pointing device. Notebook computers are typically designed to provide similar functionality to desktops, including operation of software similar in functionality to that used in desktops. Docking stations are considered accessories for notebook computers, not notebook

computers. Tablet PCs, which may use touch-sensitive screens along with, or instead of, other input devices, are considered notebook computers.

Personal computer product means a computer, computer display, desktop computer, integrated desktop computer, or notebook computer.

(b) Under this contract, the Contractor shall deliver, furnish for Government use, or furnish for Contractor use at a Federally controlled facility, only personal computer products that, at the time of submission of proposals and at the time of award, were EPEAT® bronze-registered or higher.

(c) For information about EPEAT, see *www.epa.gov/epeat*.

(End of clause)

CLAUSE I.38C – FAR 52.223-17 AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS (MAY 2008)

(a) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

(1) Competitively within a timeframe providing for compliance with the contract performance schedule;

(2) Meeting contract performance requirements; or

(3) At a reasonable price.

(b) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, http://www.epa.gov/cpg/. The list of EPA-designate items is available at http://www.epa.gov/cpg/products.htm.

CLAUSE I.38D – FAR 52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (AUG 2011)

(a) Definitions. As used in this clause--

"Driving"—

(1) Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise.

(2) Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

"Text messaging" means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.

(b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving, dated October 1, 2009.

(c) The Contractor is encouraged to—

(1) Adopt and enforce policies that ban text messaging while driving—

(i) Company-owned or -rented vehicles or Government-owned vehicles; or

(ii) Privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government.

(2) Conduct initiatives in a manner commensurate with the size of the business, such as—

(i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

(ii) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts that exceed the micro-purchase threshold.

CLAUSE I.38E - FAR 52.223-19 COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS (MAY 2011)

The Contractor's work under this contract shall conform with all operational controls identified in the applicable agency or facility Environmental Management Systems and provide monitoring and measurement information necessary for the Government to address environmental performance relative to the goals of the Environmental Management Systems.

CLAUSE I.39 - FAR 52.224-1 PRIVACY ACT NOTIFICATION (APR 1984)

The Contractor will be required to design, develop, or operate a system of records on individuals to accomplish an agency function subject to the Privacy Act of 1974, Public

Law 93-579, December 31, 1974 (5 U.S.C. 552a) and applicable agency regulations. Violation of the Act may involve the imposition of criminal penalties.

CLAUSE I.40 - FAR 52.224-2 PRIVACY ACT (APR 1984)

(a) The Contractor agrees to:

(1) Comply with the Privacy Act of 1974 (the Act) and the agency rules and regulations issued under the Act in the design, development, or operation of any system of records on individuals to accomplish an agency function when the contract specifically identifies:

(i) The system of records; and

(ii) The design, development, or operation work that the Contractor is to perform;

(2) Include the Privacy Act notification contained in this contract in every solicitation and resulting subcontract and in every subcontract awarded without a solicitation, when the work statement in the proposed subcontract requires the redesign, development, or operation of a system of records on individuals that is subject to the Act; and

(3) Include this clause, including this subparagraph (3), in all subcontracts awarded under this contract which requires the design, development, or operation of such a system of records.

(b) In the event of violations of the Act, a civil action may be brought against the agency involved when the violation concerns the design, development, or operation of a system of records on individuals to accomplish an agency function, and criminal penalties may be imposed upon the officers or employees of the agency when the violation concerns the operation of a system of records on individuals to accomplish an agency function. For purposes of the Act, when the contract is for the operation of a system of records on individuals to accomplish an agency function, the Contractor is considered to be an employee of the agency.

(c) (1) "Operation of a system of records", as used in this Clause, means performance of any of the activities associated with maintaining the system of records, including the collection, use, and dissemination of records.

(2) "Record", as used in this Clause, means any item, collection, or grouping of information about an individual that is maintained by an agency, including, but not limited to, education, financial transactions, medical history, and criminal or employment history

and that contains the person's name, or the identifying number, symbol, or other identifying particular assigned to the individual, such as a fingerprint or voiceprint or a photograph.

(3) "System of records on individuals," as used in this Clause, means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

CLAUSE I.41 – FAR 52.225-1 BUY AMERICAN ACT – SUPPLIES (MAY 2014); MODIFIED BY DEAR 970.2570

(a) *Definitions*. As used in this clause—

"Commercially available off-the-shelf (COTS) item"—

(1) Means any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(i) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

"Component" means an article, material, or supply incorporated directly into an end product.

"Cost of components" means—

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit.

Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic end product" means—

(1) An unmanufactured end product mined or produced in the United States;
(2) An end product manufactured in the United States, if—

i. The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic; or

ii. The end product is a COTS item.

"End product" means those articles, materials, and supplies to be acquired under the contract for public use.

"Foreign end product" means an end product other than a domestic end product.

"United States" means the 50 States, the District of Columbia, and outlying areas.

(b) 41 U.S.C. chapter 83, Buy American, provides a preference for domestic end products for supplies acquired for use in the United States. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for an end product that is a COTS item (See 12.505(a)(1)).

(c) Offerors may obtain from the Contracting Officer a list of foreign articles that the Contracting Officer will treat as domestic for this contract.

(d) The Contractor shall use only domestic end products except to the extent that it specified delivery of foreign end products in the provision of the solicitation entitled "Buy American Certificate."

CLAUSE I.41A – FAR 52.225-8 DUTY-FREE ENTRY (OCT 2010)

(a) *Definition.* "Customs territory of the United States" means the States, the District of Columbia, and Puerto Rico.

(b) Except as otherwise approved by the Contracting Officer, the Contractor shall not include in the contract price any amount for duties on supplies specifically identified in the Schedule to be accorded duty-free entry.

(c) Except as provided in paragraph (d) of this clause or elsewhere in this contract, the following procedures apply to supplies not identified in the Schedule to be accorded duty-free entry:

(1) The Contractor shall notify the Contracting Officer in writing of any purchase of foreign supplies (including, without limitation, raw materials, components, and intermediate assemblies) in excess of $15,000 that are to be imported into the customs territory of the United States for delivery to the Government under this contract, either as end products or for incorporation into end products. The Contractor shall furnish the notice to the Contracting Officer at least 20 calendar days before the importation. The notice shall identify the--

(i) Foreign supplies;

(ii) Estimated amount of duty; and

(iii) Country of origin.

(2) The Contracting Officer will determine whether any of these supplies should be accorded duty-free entry and will notify the Contractor within 10 calendar days after receipt of the Contractor's notification.

(3) Except as otherwise approved by the Contracting Officer, the contract price shall be reduced by (or the allowable cost shall not include) the amount of duty that would be payable if the supplies were not entered duty-free.

(d) The Contractor is not required to provide the notification under paragraph (c) of this clause for purchases of foreign supplies if--

(1) The supplies are identical in nature to items purchased by the Contractor or any subcontractor in connection with its commercial business; and

(2) Segregation of these supplies to ensure use only on Government contracts containing duty-free entry provisions is not economical or feasible.

(e) The Contractor shall claim duty-free entry only for supplies to be delivered to the Government under this contract, either as end products or incorporated into end products, and shall pay duty on supplies, or any portion of them, other than scrap, salvage, or competitive sale authorized by the Contracting Officer, diverted to nongovernmental use.

(f) The Government will execute any required duty-free entry certificates for supplies to be accorded duty-free entry and will assist the Contractor in obtaining duty-free entry for these supplies.

(g) Shipping documents for supplies to be accorded duty-free entry shall consign the shipments to the contracting agency in care of the Contractor and shall include the--

(1) Delivery address of the Contractor (or contracting agency, if appropriate);

(2) Government prime contract number;

(3) Identification of carrier;

(4) Notation "UNITED STATES GOVERNMENT, _____ [*agency*], _____ Duty-free entry to be claimed pursuant to Item No(s) _____ [*from Tariff Schedules*] _____, Harmonized Tariff Schedules of the United States. Upon arrival of shipment at port of entry, District Director of Customs, please release shipment under 19 CFR part 142 and notify [*cognizant contract administration office*] for execution of Customs Forms 7501 and 7501-A and any required duty-free entry certificates.";

(5) Gross weight in pounds (if freight is based on space tonnage, state cubic feet in addition to gross shipping weight); and

(6) Estimated value in United States dollars.

(h) The Contractor shall instruct the foreign supplier to--

(1) Consign the shipment as specified in paragraph (g) of this clause;

(2) Mark all packages with the words "UNITED STATES GOVERNMENT" and the title of the contracting agency; and

(3) Include with the shipment at least two copies of the bill of lading (or other shipping document) for use by the District Director of Customs at the port of entry.

(i) The Contractor shall provide written notice to the cognizant contract administration office immediately after notification by the Contracting Officer that duty-free entry will be accorded foreign supplies or, for duty-free supplies identified in the Schedule, upon award by the Contractor to the overseas supplier. The notice shall identify the--

(1) Foreign supplies;

(2) Country of origin;

(3) Contract number; and

(4) Scheduled delivery date(s).

(j) The Contractor shall include the substance of this clause in any subcontract if--

(1) Supplies identified in the Schedule to be accorded duty-free entry will be imported into the customs territory of the United States; or

(2) Other foreign supplies in excess of $15,000 may be imported into the customs territory of the United States.

CLAUSE I.42 – FAR 52.225-9 BUY AMERICAN ACT – CONSTRUCTION MATERIALS (MAY 2014)

(a) *Definitions*. As used in this clause—

"Commercially available off-the-shelf (COTS) item"—

(1) Means any item of supply (including construction material) that is—

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means—

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

"Domestic construction material" means—

(1) An unmanufactured construction material mined or produced in the United States;

(2) A construction material manufactured in the United States, if—

(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or

(ii) The construction material is a COTS item.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to information technology this is a commercial item or to the construction material or components listed by the Government as follows:

_____None_____
[*Contracting Officer to list applicable excepted materials or indicate "none"*]

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that—

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act.

(1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including—

(A) A description of the foreign and domestic construction materials;
(B) Unit of measure;
(C) Quantity;
(D) Price;
(E) Time of delivery or availability;
(F) Location of the construction project;
(G) Name and address of the proposed supplier; and
(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b) (3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON

Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2:	_____	_____	_____
Foreign construction material	_____	_____	_____
Domestic construction material			

[*List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.*]
[*Include other applicable supporting information.*]
[* *Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).*]

CLAUSE I.43 – FAR 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUN 2008)

(a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR Chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.

(b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from Burma or North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at http://www.treas.gov/offices/enforcement/ofac/sdn. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR Chapter V and/or on OFAC's website at http://www.treas.gov/offices/enforcement/ofac.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

CLAUSE I.43A - FAR 52.225-21 REQUIRED USE OF AMERICAN IRON, STEEL, AND OTHER MANUFACTURED GOODS—BUY AMERICAN STATUTE—CONSTRUCTION MATERIALS (MAY 2014)

(a) Definitions. As used in this clause—

"*Component*" means an article, material, or supply incorporated directly into a construction material.

"*Construction material*" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies.

"*Domestic construction material*" means the following—

(1) An unmanufactured construction material mined or produced in the United States. (The Buy American statute Applies)

(2) A manufactured construction material that is manufactured in the United States and, if the construction material consists wholly or predominantly of iron or steel, the iron or steel was produced in the United States. (Section 1605 of the Recovery Act applies.)

"*Foreign construction material*" means a construction material other than a domestic construction material.

"*Manufactured construction material*" means any construction material that is not unmanufactured construction material.

"*Steel*" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

"*United States*" means the 50 States, the District of Columbia, and outlying areas.

"*Unmanufactured construction material*" means raw material brought to the construction site for incorporation into the building or work that has not been—

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

(b) Domestic preference.

(1) This clause implements—

(i) Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) (Pub. L. 111-5), by requiring, unless an exception applies, that all manufactured construction material in the project is manufactured in the United States and, if the construction material consists wholly or predominantly of iron or steel, the iron or steel was produced in the United States (produced in the United States means that all manufacturing processes of the iron or steel must take place in the united States, except metallurgical processes involving refinement of steel additives); and,

(ii) 41 U.S.C. chapter 83, Buy American, by providing a preference for unmanufactured construction material mined or produced in the United States over unmanufactured construction materials mined or produced in a foreign country.

(2) The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraph (b)(3) and (b)(4) of this clause.

(3) This requirement does not apply to the construction material or components listed by the Government as follows: NONE

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that—

(i) The cost of domestic construction material would be unreasonable.

(A) The cost of domestic manufactured construction material, when compared to the costs of comparable foreign manufactured construction material, is unreasonable when the cumulative cost of such material will increase the cost of the contract by more than 25 percent;

(B) The cost of domestic unmanufactured construction material is unreasonable when the cost of such material exceeds the cost of comparable foreign unmanufactured construction material by more than 6 percent;

(ii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality;

(iii) The application of the restriction of section 1605 of the Recovery Act to a particular manufactured construction material would be inconsistent with the public interest or the application of the Buy American statute to a particular unmanufactured construction material would be impracticable or inconsistent with the public interest.

(c) Request for determination of inapplicability of Section 1605 of the Recovery Act or the Buy American statute.

(1) (i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including—

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Cost;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(4) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this clause.

(iii) The cost of construction material shall include all delivery costs to the construction site and any applicable duty.

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to section 1605 of the Recovery Act or the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable cost of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to section 1605 of the Recovery Act or the Buy American statute applies, use of foreign construction material is noncompliant with section 1605 of the American Recovery and Reinvestment Act or the Buy American statute.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Cost Comparison

Construction material description	Unit of measure	Quantity	Cost (dollars) *
Item 1:			
Foreign construction material			
Domestic construction material			
Item 2			

Foreign construction material			
Domestic construction material			

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.] [Include other applicable supporting information.]

[*Include all delivery costs to the construction site.]

CLAUSE I.44 - FAR 52.227-23 RIGHTS TO PROPOSAL DATA (TECHNICAL) (JUN 1987)

Except for data contained on pages of Volume I, Volume II, and Volume III (except those pages incorporated into the contract), it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data-General" clause contained in this contract) in and to the technical data contained in the proposal dated August 24, 2006, upon which this contract is based.

CLAUSE I.45 - FAR 52.229-8 TAXES -- FOREIGN COST-REIMBURSEMENT CONTRACTS (MAR 1990)

(a) Any tax or duty from which the United States Government is exempt by agreement with the Government of the successor states of the former Soviet Union, (the Ukraine, Belarus, Kazakstan, Russia, the Baltic States of Latvia and Lithuania, and Uzbekistan) or from which the Contractor or any subcontractor under this contract is exempt under the laws of the successor states of the former Soviet Union, (the Ukraine, Belarus, Kazakstan, Russia, the Baltic States of Latvia and Lithuania, and Uzbekistan) shall not constitute an allowable cost under this contract.

(b) If the Contractor or subcontractor under this contract obtains a foreign tax credit that reduces its Federal income tax liability under the United States Internal Revenue Code (Title 26, U.S. Code) because of the payment of any tax or duty that was reimbursed under this contract, the amount of the reduction shall be paid or credited at the time of such offset to the Government of the United States as the Contracting Officer directs.

CLAUSE I.46 – FAR 52.230-2 COST ACCOUNTING STANDARDS (MAY 2014)

(a) Unless the contract is exempt under 48 CFR 9903.201–1 and 9903.201–2, the provisions of 48 CFR part 9903 are incorporated herein by reference and the Contractor, in connection with this contract, shall—

(1) (CAS-covered Contracts Only) By submission of a Disclosure Statement, disclose in writing the Contractor's cost accounting practices as required by 48 CFR 9903.202–1 through 9903.202–5, including methods of distinguishing direct costs from indirect costs and the basis used for allocating indirect costs. The practices disclosed for this contract shall be the same as the practices currently disclosed and applied on all other contracts and subcontracts being performed by the Contractor and which contain a Cost Accounting Standards (CAS) clause. If the Contractor has notified the Contracting Officer that the Disclosure Statement contains trade secrets and commercial or financial information which is privileged and confidential, the Disclosure Statement shall be protected and shall not be released outside of the Government.

(2) Follow consistently the Contractor's cost accounting practices in accumulating and reporting contract performance cost data concerning this contract. If any change in cost accounting practices is made for the purposes of any contract or subcontract subject to CAS requirements, the change must be applied prospectively to this contract and the Disclosure Statement must be amended accordingly. If the contract price or cost allowance of this contract is affected by such changes, adjustment shall be made in accordance with subparagraph (a)(4) or (a)(5) of this clause, as appropriate.

(3) Comply with all CAS, including any modifications and interpretations indicated thereto contained in 48 CFR part 9904 in effect on the date of award of this contract or, if the Contractor has submitted certified cost or pricing data, on the date of final agreement on price as shown on the Contractor's signed certificate of current cost or pricing data. The Contractor shall also comply with any CAS (or modifications to CAS) which hereafter become applicable to a contract or subcontract of the Contractor. Such compliance shall be required prospectively from the date of applicability to such contract or subcontract.

(4)(i) Agree to an equitable adjustment as provided in the Changes clause of this contract if the contract cost is affected by a change which, pursuant to subparagraph (a)(3) of this clause, the Contractor is required to make to the Contractor's established cost accounting practices.

(ii) Negotiate with the Contracting Officer to determine the terms and conditions under which a change may be made to a cost accounting practice, other than a change made under other provisions of subparagraph (a)(4) of this clause; provided that no agreement may be made under this provision that will increase costs paid by the United States.

(iii) When the parties agree to a change to a cost accounting practice, other than a change under subdivision (a)(4)(i) of this clause, negotiate an equitable adjustment as provided in the Changes clause of this contract.

(5) Agree to an adjustment of the contract price or cost allowance, as appropriate, if the Contractor or a subcontractor fails to comply with an applicable Cost Accounting Standard, or to follow any cost accounting practice consistently and such failure results in

any increased costs paid by the United States. Such adjustment shall provide for recovery of the increased costs to the United States, together with interest thereon computed at the annual rate established under section 6621(a)(2) of the Internal Revenue Code of 1986 (26 U.S.C. 6621(a)(2)) for such period, from the time the payment by the United States was made to the time the adjustment is effected. In no case shall the Government recover costs greater than the increased cost to the Government, in the aggregate, on the relevant contracts subject to the price adjustment, unless the Contractor made a change in its cost accounting practices of which it was aware or should have been aware at the time of price negotiations and which it failed to disclose to the Government.

(b) If the parties fail to agree whether the Contractor or a subcontractor has complied with an applicable CAS in 48 CFR part 9904 or a CAS rule or regulation in 48 CFR part 9903 and as to any cost adjustment demanded by the United States, such failure to agree will constitute a dispute under 41 U.S.C. chapter 71, Contract Disputes.

(c) The Contractor shall permit any authorized representatives of the Government to examine and make copies of any documents, papers, or records relating to compliance with the requirements of this clause.

(d) The Contractor shall include in all negotiated subcontracts which the Contractor enters into, the substance of this clause, except paragraph (b), and shall require such inclusion in all other subcontracts, of any tier, including the obligation to comply with all CAS in effect on the subcontractor's award date or if the subcontractor has submitted certified cost or pricing data, on the date of final agreement on price as shown on the subcontractor's signed Certificate of Current Cost or Pricing Data. If the subcontract is awarded to a business unit which pursuant to 48 CFR 9903.201–2 is subject to other types of CAS coverage, the substance of the applicable clause set forth in subsection 30.201–4 of the Federal Acquisition Regulation shall be inserted. This requirement shall apply only to negotiated subcontracts in excess of $700,000, except that the requirement shall not apply to negotiated subcontracts otherwise exempt from the requirement to include a CAS clause as specified in 48 CFR 9903.201–1.

(End of clause)

CLAUSE I.47 – FAR 52.230-6 ADMINISTRATION OF COST ACCOUNTING STANDARDS (JUNE 2010)

For the purpose of administering the Cost Accounting Standards (CAS) requirements under this contract, the Contractor shall take the steps outlined in paragraphs (b) through (i) and (k) through (n) of this clause:

(a) *Definitions.* As used in this clause—

"Affected CAS-covered contract or subcontract" means a contract or subcontract subject to CAS rules and regulations for which a Contractor or subcontractor—

(1) Used one cost accounting practice to estimate costs and a changed cost accounting practice to accumulate and report costs under the contract or subcontract; or

(2) Used a noncompliant practice for purposes of estimating or accumulating and reporting costs under the contract or subcontract.

"Cognizant Federal agency official (CFAO)" means the Contracting Officer assigned by the cognizant Federal agency to administer the CAS.

"Desirable change" means a compliant change to a Contractor's established or disclosed cost accounting practices that the CFAO finds is desirable and not detrimental to the Government and is, therefore, not subject to the no increased cost prohibition provisions of CAS-covered contracts and subcontracts affected by the change.

"Fixed-price contracts and subcontracts" means—

(1) Fixed-price contracts and subcontracts described at FAR 16.202, 16.203, (except when price adjustments are based on actual costs of labor or material, described at 16.203-1(a)(2)), and 16.207;

(2) Fixed-price incentive contracts and subcontracts where the price is not adjusted based on actual costs incurred (FAR Subpart 16.4);

(3) Orders issued under indefinite-delivery contracts and subcontracts where final payment is not based on actual costs incurred (FAR Subpart 16.5); and

(4) The fixed-hourly rate portion of time-and-materials and labor-hours contracts and subcontracts (FAR Subpart 16.6).

"Flexibly-priced contracts and subcontracts" means—

(1) Fixed-price contracts and subcontracts described at FAR 16.203-1(a)(2), 16.204, 16.205, and 16.206;

(2) Cost-reimbursement contracts and subcontracts (FAR Subpart 16.3);

(3) Incentive contracts and subcontracts where the price may be adjusted based on actual costs incurred (FAR Subpart 16.4);

(4) Orders issued under indefinite-delivery contracts and subcontracts where final payment is based on actual costs incurred (FAR Subpart 16.5); and

(5) The materials portion of time-and-materials contracts and subcontracts (FAR Subpart 16.6).

"Noncompliance" means a failure in estimating, accumulating, or reporting costs to—

(1) Comply with applicable CAS; or

(2) Consistently follow disclosed or established cost accounting practices.

"Required change" means—

(1) A change in cost accounting practice that a Contractor is required to make in order to comply with applicable Standards, modifications or interpretations thereto, that

subsequently become applicable to existing CAS-covered contracts or subcontracts due to the receipt of another CAS-covered contract or subcontract; or

(2) A prospective change to a disclosed or established cost accounting practice when the CFAO determines that the former practice was in compliance with applicable CAS and the change is necessary for the Contractor to remain in compliance.

"Unilateral change" means a change in cost accounting practice from one compliant practice to another compliant practice that a Contractor with a CAS-covered contract(s) or subcontract(s) elects to make that has not been deemed a desirable change by the CFAO and for which the Government will pay no aggregate increased costs.

(b) Submit to the CFAO a description of any cost accounting practice change as outlined in paragraphs (b)(1) through (3) of this clause (including revisions to the Disclosure Statement, if applicable), and any written statement that the cost impact of the change is immaterial. If a change in cost accounting practice is implemented without submitting the notice required by this paragraph, the CFAO may determine the change to be a failure to follow paragraph (a)(2) of the clause at FAR 52.230-2, Cost Accounting Standards; paragraph (a)(4) of the clause at FAR 52.230-3, Disclosure and Consistency of Cost Accounting Practices; paragraph (a)(4) of the clause at FAR 52.230-4, Disclosure and Consistency of Cost Accounting Practices–Foreign Concerns; or paragraph (a)(2) of the clause at FAR 52.230-5, Cost Accounting Standards–Educational Institution.

(1) When a description has been submitted for a change in cost accounting practice that is dependent on a contact award and that contract is subsequently awarded, notify the CFAO within 15 days after such award.

(2) For any change in cost accounting practice not covered by (b)(1) of this clause that is required in accordance with paragraphs (a)(3) and (a)(4)(i) of the clause at FAR 52.230-2; or paragraphs (a)(3), (a)(4)(i), or (a)(4)(iv) of the clause at FAR 52.230-5; submit a description of the change to the CFAO not less than 60 days (or such other date as may be mutually agreed to by the CFAO and the Contractor) before implementation of the change.

(3) For any change in cost accounting practices proposed in accordance with paragraph (a)(4)(ii) or (iii) of the clauses at FAR 52.230-2 and FAR 52.230-5; or with paragraph (a)(3) of the clauses at FAR 52.230-3 and FAR 52.230-4, submit a description of the change not less than 60 days (or such other date as may be mutually agreed to by the CFAO and the Contractor) before implementation of the change. If the change includes a proposed retroactive date submit supporting rationale.

(4) Submit a description of the change necessary to correct a failure to comply with an applicable CAS or to follow a disclosed practice (as contemplated by paragraph (a)(5) of the clause at FAR 52.230-2 and FAR 52.230-5; or by paragraph (a)(4) of the clauses at FAR 52.230-3 and FAR 52.230-4)—

(i) Within 60 days (or such other date as may be mutually agreed to by the CFAO and the Contractor) after the date of agreement with the CFAO that there is a noncompliance; or

(ii) In the event of Contractor disagreement, within 60 days after the CFAO notifies the Contractor of the determination of noncompliance.

(c) When requested by the CFAO, submit on or before a date specified by the CFAO—

(1) A general dollar magnitude (GDM) proposal in accordance with paragraph (d) or (g) of this clause. The Contractor may submit a detailed cost-impact (DCI) proposal in lieu of the requested GDM proposal provided the DCI proposal is in accordance with paragraph (e) or (h) of this clause;

(2) A detailed cost-impact (DCI) proposal in accordance with paragraph (e) or (h) of this clause;

(3) For any request for a desirable change that is based on the criteria in FAR 30.603-2(b)(3)(ii), the data necessary to demonstrate the required cost savings; and

(4) For any request for a desirable change that is based on criteria other than that in FAR 30.603-2(b)(3)(ii), a GDM proposal and any other data necessary for the CFAO to determine if the change is a desirable change.

(d) For any change in cost accounting practice subject to paragraph (b)(1), (b)(2), or (b)(3) of this clause, the GDM proposal shall—

(1) Calculate the cost impact in accordance with paragraph (f) of this clause;

(2) Use one or more of the following methods to determine the increase or decrease in cost accumulations:

(i) A representative sample of affected CAS-covered contracts and subcontracts.

(ii) The change in indirect rates multiplied by the total estimated base computed for each of the following groups:

(A) Fixed-price contracts and subcontracts.

(B) Flexibly-priced contracts and subcontracts.

(iii) Any other method that provides a reasonable approximation of the total increase or decrease in cost accumulations for all affected fixed-price and flexibly-priced contracts and subcontracts;

(3) Use a format acceptable to the CFAO but, as a minimum, include the following data:

(i) The estimated increase or decrease in cost accumulations by Executive agency, including any impact the change may have on contract and subcontract incentives, fees, and profits, for each of the following groups:

(A) Fixed-price contracts and subcontracts.

(B) Flexibly-priced contracts and subcontracts.

(ii) For unilateral changes, the increased or decreased costs to the Government for each of the following groups:

(A) Fixed-price contracts and subcontracts.

(B) Flexibly-priced contracts and subcontracts; and

(4) When requested by the CFAO, identify all affected CAS-covered contracts and subcontracts.

(e) For any change in cost accounting practice subject to paragraph (b)(1), (b)(2), or (b)(3) of this clause, the DCI proposal shall—

(1) Show the calculation of the cost impact in accordance with paragraph (f) of this clause;

(2) Show the estimated increase or decrease in cost accumulations for each affected CAS-covered contract and subcontract unless the CFAO and Contractor agree to include—

(i) Only those affected CAS-covered contracts and subcontracts having an estimate to complete exceeding a specified amount; and

(ii) An estimate of the total increase or decrease in cost accumulations for all affected CAS-covered contracts and subcontracts, using the results in paragraph (e)(2)(i) of this clause;

(3) Use a format acceptable to the CFAO but, as a minimum, include the information in paragraph (d)(3) of this clause; and

(4) When requested by the CFAO, identify all affected CAS-covered contracts and subcontracts.

(f) For GDM and DCI proposals that are subject to the requirements of paragraph (d) or (e) of this clause, calculate the cost impact as follows:

(1) The cost impact calculation shall include all affected CAS-covered contracts and subcontracts regardless of their status (*i.e.*, open or closed) or the fiscal year in which the costs were incurred (*i.e.*, whether or not the final indirect rates have been established).

(2) For unilateral changes—

(i) Determine the increased or decreased cost to the Government for flexibly-priced contracts and subcontracts as follows:

(A) When the estimated cost to complete using the changed practice exceeds the estimated cost to complete using the current practice, the difference is increased cost to the Government.

(B) When the estimated cost to complete using the changed practice is less than the estimated cost to complete using the current practice, the difference is decreased cost to the Government;

(ii) Determine the increased or decreased cost to the Government for fixed-priced contracts and subcontracts as follows:

(A) When the estimated cost to complete using the changed practice is less than the estimated cost to complete using the current practice, the difference is increased cost to the Government.

(B) When the estimated cost to complete using the changed practice exceeds the estimated cost to complete using the current practice, the difference is decreased cost to the Government;

(iii) Calculate the total increase or decrease in contract and subcontract incentives, fees, and profits associated with the increased or decreased costs to the Government in accordance with 48 CFR 9903.306(c). The associated increase or decrease is based on the difference between the negotiated incentives, fees, and profits and the amounts that would have been negotiated had the cost impact been known at the time the contracts and subcontracts were negotiated; and

(iv) Calculate the increased cost to the Government in the aggregate.

(3) For equitable adjustments for required or desirable changes—

(i) Estimated increased cost accumulations are the basis for increasing contract prices, target prices and cost ceilings; and

(ii) Estimated decreased cost accumulations are the basis for decreasing contract prices, target prices and cost ceilings.

(g) For any noncompliant cost accounting practice subject to paragraph (b)(4) of this clause, prepare the GDM proposal as follows:

(1) Calculate the cost impact in accordance with paragraph (i) of this clause.

(2) Use one or more of the following methods to determine the increase or decrease in contract and subcontract prices or cost accumulations, as applicable:

(i) A representative sample of affected CAS-covered contracts and subcontracts.

(ii) When the noncompliance involves cost accumulation the change in indirect rates multiplied by the applicable base for only flexibly-priced contracts and subcontracts.

(iii) Any other method that provides a reasonable approximation of the total increase or decrease.

(3) Use a format acceptable to the CFAO but, as a minimum, include the following data:

(i) The total increase or decrease in contract and subcontract price and cost accumulations, as applicable, by Executive agency, including any impact the noncompliance may have on contract and subcontract incentives, fees, and profits, for each of the following groups:

(A) Fixed-price contracts and subcontracts.

(B) Flexibly-priced contracts and subcontracts.

(ii) The increased or decreased cost to the Government for each of the following groups:

(A) Fixed-price contracts and subcontracts.

(B) Flexibly-priced contracts and subcontracts.

(iii) The total overpayments and underpayments made by the Government during the period of noncompliance.

(4) When requested by the CFAO, identify all CAS-covered contracts and subcontracts.

(h) For any noncompliant practice subject to paragraph (b)(4) of this clause, prepare the DCI proposal as follows:

(1) Calculate the cost impact in accordance with paragraph (i) of this clause.

(2) Show the increase or decrease in price and cost accumulations for each affected CAS-covered contract and subcontract unless the CFAO and Contractor agree to—

(i) Include only those affected CAS-covered contracts and subcontracts having—

(A) Contract and subcontract values exceeding a specified amount when the noncompliance involves estimating costs; and

(B) Incurred costs exceeding a specified amount when the noncompliance involves accumulating costs; and

(ii) Estimate the total increase or decrease in price and cost accumulations for all affected CAS-covered contracts and subcontracts using the results in paragraph (h)(2)(i) of this clause.

(3) Use a format acceptable to the CFAO that, as a minimum, include the information in paragraph (g)(3) of this clause.

(4) When requested by the CFAO, identify all CAS-covered contracts and subcontracts.

(i) For GDM and DCI proposals that are subject to the requirements of paragraph (g) or (h) of this clause, calculate the cost impact as follows:

(1) The cost impact calculation shall include all affected CAS-covered contracts and subcontracts regardless of their status (*i.e.*, open or closed) or the fiscal year in which the costs are incurred (*i.e.*, whether or not the final indirect rates have been established).

(2) For noncompliances that involve estimating costs, determine the increased or decreased cost to the Government for fixed-price contracts and subcontracts as follows:

(i) When the negotiated contract or subcontract price exceeds what the negotiated price would have been had the Contractor used a compliant practice, the difference is increased cost to the Government.

(ii) When the negotiated contract or subcontract price is less than what the negotiated price would have been had the Contractor used a compliant practice, the difference is decreased cost to the Government.

(3) For noncompliances that involve accumulating costs, determine the increased or decreased cost to the Government for flexibly-priced contracts and subcontracts as follows:

(i) When the costs that were accumulated under the noncompliant practice exceed the costs that would have been accumulated using a compliant practice (from the time the noncompliant practice was first implemented until the date the noncompliant practice was replaced with a compliant practice), the difference is increased cost to the Government.

(ii) When the costs that were accumulated under the noncompliant practice are less than the costs that would have been accumulated using a compliant practice (from the time the noncompliant practice was first implemented until the date the noncompliant practice was replaced with a compliant practice), the difference is decreased cost to the Government.

(4) Calculate the total increase or decrease in contract and subcontracts incentives, fees, and profits associated with the increased or decreased cost to the Government in accordance with 48 CFR 9903.306(c). The associated increase or decrease is based on the difference between the negotiated incentives, fees, and profits and the amounts that would have been negotiated had the Contractor used a compliant practice.

(5) Calculate the increased cost to the Government in the aggregate.

(j) If the Contractor does not submit the information required by paragraph (b) or (c) of this clause within the specified time, or any extension granted by the CFAO, the CFAO may take one or both of the following actions:

(1) Withhold an amount not to exceed 10 percent of each subsequent amount payment to the Contractor's affected CAS-covered contracts, (up to the estimated general dollar magnitude of the cost impact), until such time as the Contractor provides the required information to the CFAO.

(2) Issue a final decision in accordance with FAR 33.211 and unilaterally adjust the contract(s) by the estimated amount of the cost impact.

(k) Agree to—

(1) Contract modifications to reflect adjustments required in accordance with paragraph (a)(4)(ii) or (a)(5) of the clauses at FAR 52.230-2 and 52.230-5; or with paragraph (a)(3)(i) or (a)(4) of the clauses at FAR 52.230-3 and FAR 52.230-4; and

(2) Repay the Government for any aggregate increased cost paid to the Contractor.

(l) For all subcontracts subject to the clauses at FAR 52.230-2, 52.230-3, 52.230-4, or 52.230-5—

(1) So state in the body of the subcontract, in the letter of award, or in both (do not use self-deleting clauses);

(2) Include the substance of this clause in all negotiated subcontracts; and

(3) Within 30 days after award of the subcontract, submit the following information to the Contractor's CFAO:

(i) Subcontractor's name and subcontract number.

(ii) Dollar amount and date of award.

(iii) Name of Contractor making the award.

(m) Notify the CFAO in writing of any adjustments required to subcontracts under this contract and agree to an adjustment to this contract price or estimated cost and fee. The Contractor shall—

(1) Provide this notice within 30 days after the Contractor receives the proposed subcontract adjustments; and

(2) Include a proposal for adjusting the higher-tier subcontract or the contract appropriately.

(n) For subcontracts containing the clause or substance of the clause at FAR 52.230-2, FAR 52.230-3, FAR 52.230-4, or FAR 52.230-5, require the subcontractor to comply with all Standards in effect on the date of award or of final agreement on price, as shown on the subcontractor's signed Certificate of Current Cost or Pricing Data, whichever is earlier.

CLAUSE I.48– FAR 52.232-17 INTEREST (MAY 2014)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Certified Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 7109, which is applicable to the period in which the amount becomes due, as provided in paragraph (e) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.

(b) The Government may issue a demand for payment to the Contractor upon finding a debt is due under the contract.

(c) *Final Decisions*. The Contracting Officer will issue a final decision as required by 33.211 if—

(1) The Contracting Officer and the Contractor are unable to reach agreement on the existence or amount of a debt in a timely manner;

(2) The Contractor fails to liquidate a debt previously demanded by the Contracting Officer within the timeline specified in the demand for payment unless the amounts were not repaid because the Contractor has requested an installment payment agreement; or

(3) The Contractor requests a deferment of collection on a debt previously demanded by the Contracting Officer (see 32.607-2).

(d) If a demand for payment was previously issued for the debt, the demand for payment included in the final decision shall identify the same due date as the original demand for payment.

(e) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment, including any demand for payment resulting from a default termination.

(f) The interest charge shall be computed for the actual number of calendar days involved beginning on the due date and ending on—

(1) The date on which the designated office receives payment from the Contractor;

(2) The date of issuance of a Government check to the Contractor from which an amount otherwise payable has been withheld as a credit against the contract debt; or

(3) The date on which an amount withheld and applied to the contract debt would otherwise have become payable to the Contractor.

(g) The interest charge made under this clause may be reduced under the procedures prescribed in 32.608-2 of the Federal Acquisition Regulation in effect on the date of this contract.

CLAUSE I.49 - FAR 52.232-18 AVAILABILITY OF FUNDS (APR 1984)

Funds are not presently available for this contract. The Government's obligation under this contract is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Contracting Officer for this contract and until the Contractor receives notice of such availability, to be confirmed in writing by the Contracting Officer.

CLAUSE I.50 - FAR 52.232-24 PROHIBITION OF ASSIGNMENT OF CLAIMS (MAY 2014)

The assignment of claims under the Assignment of Claims Act of 1940 "(31 U.S.C. 3727, 41 U.S.C. 6305)" is prohibited for this contract.

CLAUSE I.50A – FAR 52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013)

(a) Except as stated in paragraph (b) of this clause, when any supply or service acquired under this contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:

(1) Any such clause is unenforceable against the Government.

(2) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (*e.g.*, "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.

(3) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.

(b) Paragraph (a) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures

CLAUSE I.50B– FAR 52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (DEC 2013)

(a) Upon receipt of accelerated payments from the Government, the Contractor shall make accelerated payments to its small business subcontractors under this contract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable contract or subcontract, after receipt of a proper invoice and all other required documentation from the small business subcontractor.

(b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(c) Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including subcontracts with small business concerns for the acquisition of commercial items.

(End of clause)

CLAUSE I.51 - FAR 52.233-1 DISPUTES (MAY 2014) (ALTERNATE I)(DEC 1991)

(a) This contract is subject to 41 U.S.C. chapter 71, Contract Disputes.

(b) Except as provided in 41 U.S.C. chapter 71, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money

in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under 41 U.S.C. chapter 71until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under 41 U.S.C. chapter 71. The submission may be converted to a claim under 41 U.S.C. chapter 71, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d) (1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2) (i) The Contractor shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding $100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am authorized to certify the claim on behalf of the Contractor."

(3) The certification may be executed by any person authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in 41 U.S.C. chapter 71.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date that the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

CLAUSE I.52 - FAR 52.233-3 PROTEST AFTER AWARD (AUG 1996) (ALTERNATE I) (JUNE 1985)

(a) Upon receipt of a notice of protest (as defined in 33.101 of the FAR) the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause.

Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either --

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is cancelled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the

fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if -

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within thirty (30) days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not cancelled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not cancelled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this Clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs.

CLAUSE I.52A - FAR 52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)

United States law will apply to resolve any claim of breach of this contract.

CLAUSE I.53 - FAR 52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit

or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

CLAUSE I.54 - FAR 52.237-3 CONTINUITY OF SERVICES (JAN 1991)

(a) The Contractor recognizes that the services under this contract are vital to the Government and must be continued without interruption and that, upon contract expiration, a successor, either the Government or another Contractor, may continue them. The Contractor agrees to (1) furnish phase-in training, and (2) exercise its best efforts and cooperation to effect an orderly and efficient transition to a successor.

(b) The Contractor shall, upon the Contracting Officer's written notice, (1) furnish phase-in, phase-out services for up to ninety (90) days after this contract expires and (2) negotiate in good faith a plan with a successor to determine the nature and extent of phase-in, phase-out services required. The plan shall specify a training program and a date for transferring responsibilities for each division of work described in the plan, and shall be subject to the Contracting Officer's approval.
The Contractor shall provide sufficient experienced personnel during the phase-in, phase-out period to ensure that the services called for by this contract are maintained at the required level of proficiency.

(c) The Contractor shall allow as many personnel as practicable to remain on the job to help the successor maintain the continuity and consistency of the services required by this contract. The Contractor also shall disclose necessary personnel records and allow the successor to conduct on-site interviews with these employees. If selected employees are agreeable to the change, the Contractor shall release them at a mutually agreeable date and negotiate transfer of their earned fringe benefits to the successor.

(d) The Contractor shall be reimbursed for all reasonable phase-in, phase-out costs (i.e., costs incurred within the agreed period after contract expiration that result from phase-in, phase-out operations) and a fee (profit) not to exceed a pro rata portion of the fee (profit) under this contract.

CLAUSE I.55 - FAR 52.242-1 NOTICE OF INTENT TO DISALLOW COSTS (APR 1984)

(a) Notwithstanding any other clause of this contract --

(1) The Contracting Officer may, at any time, issue to the Contractor a written notice of intent to disallow specified costs incurred or planned for incurrence

under this contract that have been determined not to be allowable under the contract terms; and

(2) The Contractor may, after receiving a notice under subparagraph (1) above, submit a written response to the Contracting Officer, with justification for allowance of the costs. If the Contractor does respond within sixty (60) days, the Contracting Officer shall, within sixty (60) days of receiving the response, either make a written withdrawal of the notice or issue a written decision.

(b) Failure to issue a notice under this Notice of Intent to Disallow Costs clause shall not affect the Government's rights to take exception to incurred costs.

CLAUSE I.56 - FAR 52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

CLAUSE I.57 - FAR 52.244-5 COMPETITION IN SUBCONTRACTING (DEC 1996)

(a) The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

(b) If the Contractor is an approved mentor under the Department of Defense Pilot Mentor-Protégé Program (Pub. L. 101-510, section 831 as amended), the Contractor may award subcontracts under this contract on a noncompetitive basis to its protégés.

CLAUSE I.58 – FAR 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (APR 2015)

(a) *Definitions.* As used in this clause—

Commercial item has the meaning contained in Federal Acquisition Regulation 2.101, Definitions.

Subcontract includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (APR 2010) (41 U.S.C. 3509), if the subcontract exceeds $5,000,000 and has a performance period of more than 120 days. In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(ii) 52.203-15, Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5), if the subcontract is funded under the Recovery Act.

(iii) 52.219-8, Utilization of Small Business Concerns (OCT 2014) (15 U.S.C. 637(d)(2) and (3)), if the subcontract offers further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $650,000 ($1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iv) 52.222-21**,** Prohibition of Segregated Facilities (APR 2015).

(v) 52.222-26, Equal Opportunity (APR 2015) (E.O. 11246).

(vi) 52.222-35, Equal Opportunity for Veterans (July 2014) (38 U.S.C. 4212(a));

(vii) 52.222-36, Equal Opportunity for Workers with Disabilities (July 2014) (29 U.S.C. 793).

(viii) 52.222-37, Employment Reports on Veterans (July 2014) (38 U.S.C. 4212).

(ix) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause 52.222-40.

(x)(A) 52.222-50, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).

(B) Alternate I (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).

(xi) 52.222-55, Establishing a Minimum Wage for Contractors (E.O. 13658) (Dec 2014).

(xii) 52.225-26, Contractors Performing Private Security Functions Outside the United States *Jul 2013)* (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xiii) 52.232-40, Providing Accelerated Payments to Small Business Subcontractors (DEC 2013), if flow down is required in accordance with paragraph (c) of FAR clause 52.232-40.

(xiv) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. App. 1241 and 10 U.S.C. 2631), if flow down is required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

CLAUSE I.59 - FAR 52.247-1 COMMERCIAL BILL OF LADING NOTATIONS (FEB 2006)

When the Contracting Officer authorizes supplies to be shipped on a commercial bill of lading and the Contractor will be reimbursed these transportation costs as direct allowable costs, the Contractor shall ensure before shipment is made that the commercial shipping documents are annotated with either of the following notations, as appropriate:

(a) If the Government is shown as the consignor or the consignee, the annotation shall be:

Transportation is for the U.S. Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are assignable to, and shall be reimbursed by, the Government.

(b) If the Government is not shown as the consignor or the consignee, the annotation shall be:

Transportation is for the U.S. Department of Energy and the actual total transportation charges paid to the carrier(s) by the consignor or consignee shall be reimbursed by the Government, pursuant to cost-reimbursement Contract No. DE-AC02-07CH11359. This may be confirmed by contacting the U.S. Department of Energy, Fermi Site Office, Kirk Road and Pine Street, Batavia, Illinois 60510.

CLAUSE I.60 - FAR 52.247-63 PREFERENCE FOR U.S. FLAG AIR CARRIERS (JUN 2003)

(a) *Definitions*. As used in this clause --

International air transportation means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.

United States means the 50 States, the District of Columbia, and outlying areas.

U.S.-flag air carrier means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

(b) Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118)(Fly America-Act) requires that all Federal agencies and Government Contractors and subcontractors use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

(c) If available, the Contractor, in performing work under this contract, shall use U.S.-flag air carriers for international air transportation of personnel (and their personal effects) or property.

(d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

STATEMENT OF UNAVAILABILITY OF U.S.-FLAG AIR CARRIERS

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons (see Section 47.403 of the Federal Acquisition Regulation): [State reasons]:

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase order under this contract that may involve international air transportation.

CLAUSE I.61 - FAR 52.247-64 PREFERENCE FOR PRIVATELY OWNED U.S.-FLAG COMMERCIAL VESSELS (FEB 2006)

(a) Except as provided in paragraph (e) of this clause, the Cargo Preference Act of 1954 (46 U.S.C. Appendix 1241(b)) requires that Federal departments and agencies shall transport in privately owned U.S.-flag commercial vessels at least 50 percent of the gross tonnage of equipment, materials, or commodities that may be transported in ocean vessels (computed separately for dry bulk carriers, dry cargo liners, and tankers). Such transportation shall be accomplished when any equipment, materials, or commodities, located within or outside the United States that may be transported by ocean vessel are --

(1) Acquired for a U.S. Government agency account;

(2) Furnished to, or for the account of, any foreign nation without provision for reimbursement;

(3) Furnished for the account of a foreign nation in connection with which the United States advances funds or credits, or guarantees the convertibility of foreign currencies; or

(4) Acquired with advance of funds, loans, or guaranties made by or on behalf of the United States.

(b) The Contractor shall use privately owned U.S.-flag commercial vessels to ship at least 50 percent of the gross tonnage involved under this contract (computed separately for dry bulk carriers, dry cargo liners, and tankers) whenever shipping any equipment, materials, or commodities under the conditions set forth in paragraph (a) above, to the extent that such vessels are available at rates that are fair and reasonable for privately owned U.S.-flag commercial vessels.

(c) (1) The Contractor shall submit one legible copy of a rated on-board ocean bill of lading for each shipment to both --

(i) The Contracting Officer, and

(ii) The:
Office of Cargo Preference
Maritime Administration (MAR-590)
400 Seventh Street, SW
Washington DC 20590

Subcontractor bills of lading shall be submitted through the Prime Contractor.

(2) The Contractor shall furnish these bill of lading copies (i) within 20 working days of the date of loading for shipments originating in the United States, or (ii) within 30 working days for shipments originating outside the United States. Each bill of lading copy shall contain the following information:

(A) Sponsoring U.S. Government agency.

(B) Name of vessel.

(C) Vessel flag of registry.

(D) Date of loading.

(E) Port of loading.

(F) Port of final discharge.

(G) Description of commodity.

(H) Gross weight in pounds and cubic feet if available.

(I) Total ocean freight revenue in U.S. dollars.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts or purchase orders under this contract, except those described in paragraph (e)(4).

(e) The requirement in paragraph (a) does not apply to --

(1) Cargoes carried in vessels as required or authorized by law or treaty;

(2) Ocean transportation between foreign countries of supplies purchased with foreign currencies made available, or derived from funds that are made available, under the Foreign Assistance Act of 1961 (22 U.S.C. 2353);

(3) Shipments of classified supplies when the classification prohibits the use of non-Government vessels; and

(4) Subcontracts or purchase orders for the acquisition of commercial items unless –

(i) This contract is –

(A) A contract or agreement for ocean transportation services; or

(B) A construction contract; or

(ii) The supplies being transported are –

(A) Items the Contractor is reselling or distributing to the Government without adding value. (Generally, the Contractor does not add value to the items when it subcontracts items for f.o.b. destination shipment); or

(B) Shipped in direct support of U.S. military –

(1) Contingency operations;

(2) Exercises; or

(3) Forces deployed in connection with United Nations or North Atlantic Treaty Organization humanitarian or peacekeeping operations.

(f) Guidance regarding fair and reasonable rates for privately owned U.S.-flag commercial vessels may be obtained from the:

Office of Costs and Rates
Maritime Administration
400 Seventh Street, SW
Washington DC 20590
Phone: 202-366-2324.

CLAUSE I.62 - FAR 52.247-67 SUBMISSION OF TRANSPORTATION DOCUMENTS FOR AUDIT (FEB 2006)

(a) The Contractor shall submit to the address identified below, for prepayment audit, transportation documents on which the United States will assume freight charges that were paid--

(1) By the Contractor under a cost-reimbursement contract; and

(2) By a first-tier subcontractor under a cost-reimbursement subcontract thereunder.

(b) Cost-reimbursement Contractors shall only submit for audit those bills of lading with freight shipment charges exceeding $100. Bills under $100 shall be retained on-site by the Contractor and made available for on-site audits. This exception only applies to freight shipment bills and is not intended to apply to bills and invoices for any other transportation services.

(c) Contractors shall submit the above referenced transportation documents to --

Fermi Site Office
Kirk Road and Pine Street
MS: 118
Batavia, IL 60510

CLAUSE I.63 - FAR 52.249-6 TERMINATION (COST-REIMBURSEMENT) (MAY 2004); MODIFIED BY DEAR 970.4905-1 (DEC 2000)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part, if --

(1) The Contracting Officer determines that a termination is in the Government's interest; or

(2) The Contractor defaults in performing this contract and fails to cure the default within 10 days (unless extended by the Contracting Officer) after receiving a notice specifying the default. "Default" includes failure to make progress in the work so as to endanger performance.

(b) The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying whether termination is for default of the Contractor or for convenience of the Government, the extent of termination, and the effective date. If, after termination for default, it is determined that the Contractor was not in default or that the Contractor's failure to perform or to make progress in performance is due to causes beyond the control and without the fault or negligence of the Contractor as set forth in the Excusable Delays clause, the rights and obligations of the parties will be the same as if the termination was for the convenience of the Government.

(c) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations,

regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause), except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts, the cost of which would be reimbursable in whole or in part, under this contract; approval or ratification will be final for purposes of this clause.

(6) Transfer title (if not already transferred) and, as directed by the Contracting Officer, deliver to the Government --

(i) The fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated;

(ii) The completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government; and

(iii) The jigs, dies, fixtures, and other special tools and tooling acquired or manufactured for this contract, the cost of which the Contractor has been or will be reimbursed under this contract.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (c) (6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(d) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(e) After expiration of the plant clearance period as defined in Subpart 49.001 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept the items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(f) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension.

If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(g) Subject to paragraph (f) of this clause, the Contractor and the Contracting Officer may agree on the whole or any part of the amount to be paid (including an

allowance for fee) because of the termination. The contract shall be amended, and the Contractor paid the agreed amount.

(h) If the Contractor and the Contracting Officer fail to agree in whole or in part on the amount of costs and/or fee to be paid because of the termination of work, the Contracting Officer shall determine, on the basis of information available, the amount, if any, due the Contractor, and shall pay that amount, which shall include the following:

(1) All costs reimbursable under this contract, not previously paid, for the performance of this contract before the effective date of the termination, and those costs that may continue for a reasonable time with the approval of or as directed by the Contracting Officer; however, the Contractor shall discontinue those costs as rapidly as practicable.

(2) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subparagraph (h)(1) of this clause.

(3) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory. If the termination is for default, no amounts for the preparation of the Contractor's termination settlement proposal may be included.

(4) A portion of the fee payable under the contract, determined as follows:

(i) If the contract is terminated for the convenience of the Government, the settlement shall include a percentage of the fee equal to the percentage of completion of work contemplated under the contract, but excluding subcontract effort included in subcontractors' termination proposals, less previous payments for fee.

(ii) If the contract is terminated for default, the total fee payable shall be such proportionate part of the fee as the total number of articles (or amount of services) delivered to and accepted by the Government is to the total number of articles (or amount of services) of a like kind required by the contract.

(5) If the settlement includes only fee, it will be determined under subparagraph (h) (4) of this clause.

(i) The cost principles and procedures in Part 31 of the Federal Acquisition Regulation, as supplemented in Subpart 970.31 of the Department of Energy Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (f), (h), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (f) and failed to request a time extension, there is no right of appeal. If the Contracting Officer has made a determination of the amount due under paragraph (f), (h) or (l) of this clause, the Government shall pay the Contractor --

(1) The amount determined by the Contracting Officer if there is no right of appeal or if no timely appeal has been taken; or

(2) The amount finally determined on an appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted --

(1) All unliquidated advance or other payments to the Contractor, under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of materials, supplies, or other things acquired by the Contractor or sold under this clause and not recovered by or credited to the Government.

(l) The Contractor and Contracting Officer must agree to any equitable adjustment in fee for the continued portion of the contract when there is a partial termination. The Contracting Officer shall amend the contract to reflect the agreement.

(m) (1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) The provisions of this clause relating to fee are inapplicable if this contract does not include a fee.

CLAUSE I.64 - FAR 52.249-14 EXCUSABLE DELAYS (APR 1984)

(a) Except for defaults of subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. “Default” includes failure to make progress in the work so as to endanger performance.

(b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless --

(1) The subcontracted supplies or services were obtainable from other sources;

(2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and

(3) The Contractor failed to comply reasonably with this order.

(c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure.

If the Contracting Officer determines that any failure to perform results from one or more of the causes above, the delivery schedule shall be revised, subject to the rights of the Government under the termination clause of this contract.

CLAUSE I.65 - FAR 52.251-1 GOVERNMENT SUPPLY SOURCES (APR 2012) (DEVIATION)

The Contracting Officer may issue the Contractor an authorization to use Government supply sources in the performance of this contract. Title to all property acquired by the Contractor under such an authorization shall vest in the Government unless otherwise specified in the contract. Such property shall not be considered to be "Government-furnished property," as distinguished from "Government property." The provisions of the clause entitled "Property" shall apply to all property acquired under such authorization.

(End of clause)

CLAUSE I.66 - FAR 52.251-2 INTERAGENCY FLEET MANAGEMENT SYSTEM VEHICLES AND RELATED SERVICES (JAN 1991)

The Contracting Officer may issue the Contractor an authorization to obtain interagency fleet management system (IFMS) vehicles and related services for use in the performance of this contract. The use, service, and maintenance of interagency fleet management system vehicles and the use of related services by the Contractor shall be in accordance with 41 CFR 101-39 and 41 CFR 101-38.301-1.

CLAUSE I.67 - FAR 52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any Department of Energy Acquisition Regulation (48 CFR Chapter 9) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

CLAUSE I.68 - FAR 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated

version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(c) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the Parties will be determined based on the content of the required form.

CLAUSE I.69 - DEAR 952.203-70 WHISTLEBLOWER PROTECTION FOR CONTRACTOR EMPLOYEES (DEC 2000)

(a) The contractor shall comply with the requirements of "DOE Contractor Employee Protection Program" at 10 CFR part 708 for work performed on behalf of DOE directly related to activities at DOE-owned or -leased sites.

(b) The contractor shall insert or have inserted the substance of this clause, including this paragraph (b), in subcontracts at all tiers, for subcontracts involving work performed on behalf of DOE directly related to activities at DOE-owned or -leased sites.

CLAUSE I.70 - DEAR 952.204-71 SENSITIVE FOREIGN NATIONS CONTROLS (MAR 2011)

(a) In connection with any activities in the performance of this contract, the Contractor agrees to comply with the "Sensitive Foreign Nations Controls" requirements attached to this contract, relating to those countries, which may from time to time, be identified to the Contractor by written notice as sensitive foreign nations. The Contractor shall have the right to terminate its performance under this contract upon at least 60 days' prior written notice to the Contracting Officer if the Contractor determines that it is unable, without substantially interfering with its polices or without adversely impacting its performance to continue performance of the work under this contract as a result of such notification. If the Contractor elects to terminate performance, the provisions of this contract regarding termination for the convenience of the Government shall apply.

(b) The provisions of this clause shall be included in any subcontracts which may involve making unclassified information about nuclear technology available to sensitive foreign nations.

(End of clause)

CLAUSE I.70A - DEAR 952.204-77 COMPUTER SECURITY (AUG 2006)

(a) Definitions.

(1) Computer means desktop computers, portable computers, computer networks (including the DOE Network and local area networks at or controlled by DOE organizations), network devices, automated information systems, and or other related computer equipment owned by, leased, or operated on behalf of the DOE.

(2) Individual means a DOE Contractor or subcontractor employee, or any other person who has been granted access to a DOE computer or to information on a DOE computer, and does not include a member of the public who sends an e-mail message to a DOE computer or who obtains information available to the public on DOE Web sites.

(b) Access to DOE computers. A Contractor shall not allow an individual to have access to information on a DOE computer unless—

(1) The individual has acknowledged in writing that the individual has no expectation of privacy in the use of a DOE computer; and

(2) The individual has consented in writing to permit access by an authorized investigative agency to any DOE computer used during the period of that individual's access to information on a DOE computer, and for a period of three years thereafter.

(c) No expectation of privacy. Notwithstanding any other provision of law (including any provision of law enacted by the Electronic Communications Privacy Act of 1986), no individual using a DOE computer shall have any expectation of privacy in the use of that computer.

(d) Written records. The Contractor is responsible for maintaining written records for itself and subcontractors demonstrating compliance with the provisions of paragraph (b) of this section. The Contractor agrees to provide access to these records to the DOE, or its authorized agents, upon request.

(e) Subcontracts. The Contractor shall insert this clause, including this paragraph (e), in subcontracts under this contract that may provide access to computers owned, leased or operated on behalf of the DOE.

CLAUSE I.71 - DEAR 952.204-72 DISCLOSURE OF INFORMATION (APR 1994)

(a) It is mutually expected that the activities under this contract will not involve classified information. It is understood, however, that if in the opinion of either party, this expectation changes prior to the expiration or terminating of all activities under this contract, said party shall notify the other party accordingly in writing

without delay. In any event, the contractor shall classify, safeguard, and otherwise act with respect to all classified information in accordance with applicable law and the requirements of DOE, and shall promptly inform DOE in writing if and when classified information becomes involved, or in the mutual judgment of the parties it appears likely that classified information or material may become involved. The contractor shall have the right to terminate performance of the work under this contract and in such event the provisions of this contract respecting termination for the convenience of the Government shall apply.

(b) The contractor shall not permit any individual to have access to classified information except in accordance with the Atomic Energy Act 1954, as amended, Executive Order 12356, and DOE's regulations or requirements.

(c) The term "Restricted Data" as used in this article means all data concerning the design, manufacture, or utilization of atomic weapons, the production of special nuclear material or the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the Restricted Data category pursuant to section 142 of the Atomic Energy Act of 1954, as amended.

CLAUSE I.72 - DEAR 952.204-75 PUBLIC AFFAIRS (DEC 2000)

(a) The Contractor must cooperate with the Department in releasing unclassified information to the public and news media regarding DOE policies, programs, and activities relating to its effort under the contract. The responsibilities under this clause must be accomplished through coordination with the Contracting Officer and appropriate DOE public affairs personnel in accordance with procedures defined by the Contracting Officer.

(b) The Contractor is responsible for the development, planning, and coordination of proactive approaches for the timely dissemination of unclassified information regarding DOE activities onsite and offsite, including, but not limited to, operations and programs. Proactive public affairs programs may utilize a variety of communication media, including public workshops, meetings or hearings, open houses, newsletters, press releases, conferences, audio/visual presentations, speeches, forums, tours, and other appropriate stakeholder interactions.

(c) The Contractor’s internal procedures must ensure that all releases of information to the public and news media are coordinated through, and approved by, a management official at an appropriate level within the Contractor's organization.

(d) The Contractor must comply with established DOE procedures for obtaining advance clearances on oral, written, and audio/visual informational material prepared for public dissemination or use.

(e) Unless prohibited by law, and in accordance with procedures defined by the Contracting Officer, the Contractor must notify the Contracting Officer and appropriate DOE public affairs personnel of communications or contacts with Members of Congress relating to the effort performed under the contract.

(f) In accordance with procedures defined by the Contracting Officer, the Contractor must notify the Contracting Officer and appropriate DOE public affairs personnel of activities or situations that may attract regional or national news media attention and of non-routine inquiries from national news media relating to the effort performed under the contract.

(g) In releases of information to the public and news media, the Contractor must fully and accurately identify the Contractor's relationship to the Department and fully and accurately credit the Department for its role in funding programs and projects resulting in scientific, technical, and other achievements.

CLAUSE I.73 - DEAR 952.208-7 TAGGING OF LEASED VEHICLES (APR 1984)

(a) DOE intends to use U.S. Government license tags.

(c) While it is the intention that vehicles leased hereunder shall operate on Federal tags, the DOE reserves the right to utilize State tags, if necessary, to accomplish its mission. Should State tags be required, the Contractor shall furnish the DOE the documentation required by the State to acquire such tags.

CLAUSE I.74 – DEAR 952.209-72 ORGANIZATIONAL CONFLICTS OF INTEREST (AUG 2009) ALTERNATE I (AUG 2009)

(a) Purpose. The purpose of this clause is to ensure that the Contractor (1) is not biased because of its financial, contractual, organizational, or other interests which relate to the work under this contract, and (2) does not obtain any unfair competitive advantage over other parties by virtue of its performance of this contract.

(b) Scope. The restrictions described herein shall apply to performance or participation by the Contractor and any of its affiliates or their successors in interest (hereinafter collectively referred to as "Contractor") in the activities covered by this clause as a prime Contractor, subcontractor, cosponsor, joint venturer, consultant, or in any similar capacity.

For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both.

(1) Use of Contractor's Work Product.

(i) The Contractor shall be ineligible to participate in any capacity in Department contracts, subcontracts, or proposals therefore (solicited and unsolicited) which stem directly from the Contractor's performance of work under this contract for a period of (Contracting Officer see 48 CFR 909.507-2 and enter specific term) years after the completion of this contract. Furthermore, unless so directed in writing by the Contracting Officer, the Contractor shall not perform any advisory and assistance services work under this contract on any of its products or services or the products or services of another firm if the Contractor is or has been substantially involved in their development or marketing. Nothing in this subparagraph shall preclude the Contractor from competing for follow-on contracts for advisory and assistance services.

(ii) If, under this contract, the Contractor prepares a complete or essentially complete statement of work or specifications to be used in competitive acquisitions, the Contractor shall be ineligible to perform or participate in any capacity in any contractual effort which is based on such statement of work or specifications. The Contractor shall not incorporate its products or services in such statement of work or specifications unless so directed in writing by the Contracting Officer, in which case the restriction in this subparagraph shall not apply.

(iii) Nothing in this paragraph shall preclude the Contractor from offering or selling its standard and commercial items to the Government.

(2) Access to and use of information.

(i) If the Contractor, in the performance of this contract, obtains access to information, such as Department plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or data which has not been released or otherwise made available to the public, the Contractor agrees that without prior written approval of the Contracting Officer it shall not—

(A) use such information for any private purpose unless the information has been released or otherwise made available to the public;

(B) compete for work for the Department based on such information for a period of six (6) months after either the completion of this contract or until such information is released or otherwise made available to the public, whichever is first;

(C) submit an unsolicited proposal to the Government which is based on such information until one year after such information is released or otherwise made available to the public; and

(D) release such information unless such information has previously been released or otherwise made available to the public by the Department.

(ii) In addition, the Contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or other confidential or privileged technical, business, or financial information under this contract, it shall treat such information in accordance with any restrictions imposed on such information.

(iii) The Contractor may use technical data it first produces under this contract for its private purposes consistent with paragraphs (b)(2)(i) (A) and (D) of this clause and the patent, rights in data, and security provisions of this contract.

(c) Disclosure after award.

(1) The Contractor agrees that, if changes, including additions, to the facts disclosed by it prior to award of this contract, occur during the performance of this contract, it shall make an immediate and full disclosure of such changes in writing to the Contracting Officer. Such disclosure may include a description of any action which the Contractor has taken or proposes to take to avoid, neutralize, or mitigate any resulting conflict of interest. The Department may, however, terminate the contract for convenience if it deems such termination to be in the best interest of the Government.

(2) In the event that the Contractor was aware of facts required to be disclosed or the existence of an actual or potential organizational conflict of interest and did not disclose such facts or such conflict of interest to the Contracting Officer, DOE may terminate this contract for default.

(d) Remedies. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any facts required to be disclosed concerning this contract,

including the existence of an actual or potential organizational conflict of interest at the time of or after award, the Government may terminate the contract for default, disqualify the Contractor from subsequent related contractual efforts, and pursue such other remedies as may be permitted by law or this contract.

(e) Waiver. Requests for waiver under this clause shall be directed in writing to the Contracting Officer and shall include a full description of the requested waiver and the reasons in support thereof. If it is determined to be in the best interests of the Government, the Contracting Officer may grant such a waiver in writing.

(f) Subcontracts.

(1) The Contractor shall include a clause, substantially similar to this clause, including this paragraph (f), in subcontracts expected to exceed the simplified acquisition threshold determined in accordance with 48 CFR part 13 and involving the performance of advisory and assistance services as that term is defined at 48 CFR 2.101. The terms "contract, " "Contractor," and "Contracting Officer" shall be appropriately modified to preserve the Government's rights.

(2) Prior to the award under this contract of any such subcontracts for advisory and assistance services, the Contractor shall obtain from the proposed subcontractor or consultant the disclosure required by 48 CFR 909.507-1, and shall determine in writing whether the interests disclosed present an actual or significant potential for an organizational conflict of interest. Where an actual or significant potential organizational conflict of interest is identified, the Contractor shall take actions to avoid, neutralize, or mitigate the organizational conflict to the satisfaction of the Contractor.

If the conflict cannot be avoided or neutralized, the Contractor must obtain the approval of the DOE Contracting Officer prior to entering into the subcontract.

CLAUSE I.75- RESERVED

CLAUSE I.76 – DEAR 952.211-71 PRIORITIES AND ALLOCATIONS (ATOMIC ENERGY) (APR 2008)

The Contractor shall follow the provisions of Defense Priorities and Allocations System (DPAS) regulation (15 CFR Part 700) in obtaining controlled materials and other products and materials needed to fill this contract.

CLAUSE I.77 - DEAR 952.215-70 KEY PERSONNEL (DEC 2000)

(a) The personnel listed in Section J.5, Appendix E – Key Personnel are considered essential to the work being performed under this contract. Before removing,

replacing, or diverting any of the listed or specified personnel, the Contractor must:

(1) Notify the Contracting Officer reasonably in advance;

(2) submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this contract; and

(3) obtain the Contracting Officer's written approval.

Notwithstanding the foregoing, if the Contractor deems immediate removal or suspension of any member of its management team is necessary to fulfill its obligation to maintain satisfactory standards of employee competency, conduct, and integrity under the clause at 48 CFR 970.5203-3, Contractor's Organization**,** the Contractor may remove or suspend such person at once, although the Contractor must notify Contracting Officer prior to or concurrently with such action.

(b) The list of personnel may, with the consent of the contracting parties, be amended from time to time during the course of the contract to add or delete personnel.

CLAUSE I.78 - DEAR 952.217-70 ACQUISITION OF REAL PROPERTY (MAR 2011)

(a) Notwithstanding any other provision of the contract, the prior approval of the Contracting Officer shall be obtained when, in performance of this contract, the Contractor acquires or proposes to acquire use of real property by:

(1) Purchase, on the Government's behalf or in the Contractor's own name, with title eventually vesting in the Government.

(2) Lease for which the Department of Energy will reimburse the incurred costs as a reimbursable contract cost.

(3) Acquisition of temporary interest through easement, license or permit, and the Government funds the entire cost of the temporary interest.

(b) Justification of an execution of any real property acquisitions shall be in accordance and compliance with directions provided by the Contracting Officer.

(c) The substance of this Clause, including this paragraph (c), shall be included in any subcontract occasioned by this contract under which property described in paragraph (a) of this Clause shall be acquired.

CLAUSE I.79 - DEAR 952.223-75 PRESERVATION OF INDIVIDUAL OCCUPATIONAL RADIATION EXPOSURE RECORDS (APR 1984)

Individual occupational radiation exposure records generated in the performance of work under this contract shall be generated and maintained by the contractor in accordance with 36 CFR Chapter XII, Subchapter B, "Records Management," the National Archives and Records Administration (NARA)-approved DOE Records Disposition Schedules, and shall be operated as a DOE Privacy Act system of records, in accordance with the Privacy Act.

(End of clause)

CLAUSE I.80 - RESERVED

CLAUSE I.81 - DEAR 952.226-74 DISPLACED EMPLOYEE HIRING PREFERENCE (JUN 1997)

(a) Definition.

Eligible employee means a current or former employee of a Contractor or subcontractor employed at a Department of Energy Defense Nuclear Facility (1) whose position of employment has been, or will be, involuntarily terminated (except if terminated for cause), (2) who has also met the eligibility criteria contained in the Department of Energy guidance for Contractor work force restructuring, as may be amended or supplemented from time to time, and (3) who is qualified for a particular job vacancy with the Department or one of its Contractors with respect to work under its contract with the Department at the time the particular position is available.

(b) Consistent with Department of Energy guidance for Contractor work force restructuring, as may be amended or supplemented from time to time, the Contractor agrees that it will provide a preference in hiring to an eligible employee to the extent practicable for work performed under this contract.

(c) The requirements of this clause shall be included in subcontracts at any tier (except for subcontracts for commercial items pursuant to 41 U.S.C. 403) expected to exceed $500,000.

CLAUSE I.82 - DEAR 952.235-71 RESEARCH MISCONDUCT (JUL 2005)

(a) The contractor is responsible for maintaining the integrity of research performed pursuant to this contract award including the prevention, detection, and remediation of research misconduct as defined by this clause, and the conduct of inquiries,

investigations, and adjudication of allegations of research misconduct in accordance with the requirements of this clause.

(b) Unless otherwise instructed by the contracting officer, the contractor must conduct an initial inquiry into any allegation of research misconduct.
If the contractor determines that there is sufficient evidence to proceed to an investigation, it must notify the contracting officer and, unless otherwise instructed, the contractor must:

(1) Conduct an investigation to develop a complete factual record and an examination of such record leading to either a finding of research misconduct and an identification of appropriate remedies or a determination that no further action is warranted;

(2) If the investigation leads to a finding of research misconduct, conduct an adjudication by a responsible official who was not involved in the inquiry or investigation and is separated organizationally from the element which conducted the investigation. The adjudication must include a review of the investigative record and, as warranted, a determination of appropriate corrective actions and sanctions.

(3) Inform the contracting officer if an initial inquiry supports a formal investigation and, if requested by the contracting officer thereafter, keep the contracting officer informed of the results of the investigation and any subsequent adjudication. When an investigation is complete, the contractor will forward to the contracting officer a copy of the evidentiary record, the investigative report, any recommendations made to the contractor's adjudicating official, the adjudicating official's decision and notification of any corrective action taken or planned, and the subject's written response (if any).

(c) The Department may elect to act in lieu of the contractor in conducting an inquiry or investigation into an allegation of research misconduct if the contracting officer finds that:

(1) The research organization is not prepared to handle the allegation in a manner consistent with this clause;

(2) The allegation involves an entity of sufficiently small size that it cannot reasonably conduct the inquiry;

(3) DOE involvement is necessary to ensure the public heath, safety, and security, or to prevent harm to the public interest; or,

(4) The allegation involves possible criminal misconduct.

(d) In conducting the activities under paragraphs (b) and (c) of this clause, the contractor and the Department, if it elects to conduct the inquiry or investigation, shall adhere to the following guidelines:

(1) Safeguards for information and subjects of allegations. The contractor shall provide safeguards to ensure that individuals may bring allegations of research misconduct made in good faith to the attention of the contractor without suffering retribution. Safeguards include: protection against retaliation; fair and objective procedures for examining and resolving allegations; and diligence in protecting positions and reputations. The contractor shall also provide the subjects of allegations confidence that their rights are protected and that the mere filing of an allegation of research misconduct will not result in an adverse action. Safeguards include timely written notice regarding substantive allegations against them, a description of the allegation and reasonable access to any evidence submitted to support the allegation or developed in response to an allegation and notice of any findings of research misconduct.

(2) Objectivity and Expertise. The contractor shall select individual(s) to inquire, investigate, and adjudicate allegations of research misconduct who have appropriate expertise and have no unresolved conflict of interest. The individual(s) who conducts an adjudication must not be the same individual(s) who conducted the inquiry or investigation, and must be separate organizationally from the element that conducted the inquiry or investigation.

(3) Timeliness. The contractor shall coordinate, inquire, investigate and adjudicate allegations of research misconduct promptly, but thoroughly. Generally, an investigation should be completed within 120 days of initiation, and adjudication should be complete within 60 days of receipt of the record of investigation.

(4) Confidentiality. To the extent possible, consistent with fair and thorough processing of allegations of research misconduct and applicable law and regulation, knowledge about the identity of the subjects of allegations and informants should be limited to those with a need to know.

(5) Remediation and Sanction. If the contractor finds that research misconduct has occurred, it shall assess the seriousness of the misconduct and its impact

on the research completed or in process. The contractor must take all necessary corrective actions.

Such action may include but are not limited to, correcting the research record and as appropriate imposing restrictions, controls, or other parameters on research in process or to be conducted in the future. The contractor must coordinate remedial actions with the contracting officer.
The contractor must also consider whether personnel sanctions are appropriate. Any such sanction must be considered and effected consistent with any applicable personnel laws, policies, and procedures, and shall take into account the seriousness of the misconduct and its impact, whether it was done knowingly or intentionally, and whether it was an isolated event or pattern of conduct.

(e) DOE reserves the right to pursue such remedies and other actions as it deems appropriate, consistent with the terms and conditions of the award instrument and applicable laws and regulations. However, the contractor's good faith administration of this clause and the effectiveness of its remedial actions and sanctions shall be positive considerations and shall be taken into account as mitigating factors in assessing the need for such actions. If DOE pursues any such action, it will inform the subject of the action of the outcome and any applicable appeal procedures.

(f) Definitions.

Adjudication means a formal review of a record of investigation of alleged research misconduct to determine whether and what corrective actions and sanctions should be taken.

Fabrication means making up data or results and recording or reporting them.

Falsification means manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

Finding of Research Misconduct means a determination, based on a preponderance of the evidence, that research misconduct has occurred.
Such a finding requires a conclusion that there has been a significant departure from accepted practices of the relevant research community and that it be knowingly, intentionally, or recklessly committed.

Inquiry means information gathering and initial fact-finding to determine whether an allegation or apparent instance of misconduct warrants an investigation.

Investigation means the formal examination and evaluation of the relevant facts.

Plagiarism means the appropriation of another person's ideas, processes, results, or words without giving appropriate credit. Research means all basic, applied, and demonstration research in all fields of science, medicine, engineering, and mathematics, including, but not limited to, research in economics, education, linguistics, medicine, psychology, social sciences statistics, and research involving human subjects or animals.

Research Misconduct means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results, but does not include honest error or differences of opinion.

Research record means the record of all data or results that embody the facts resulting from scientists' inquiries, including, but not limited to, research proposals, laboratory records, both physical and electronic, progress reports, abstracts, theses, oral presentations, internal reports, and journal articles.

(g) By executing this contract, the contractor provides its assurance that it has established an administrative process for performing an inquiry, mediating if possible, or investigating, and reporting allegations of research misconduct; and that it will comply with its own administrative process and the requirements of 10 CFR part 733 for performing an inquiry, possible mediation, investigation and reporting of research misconduct.

(h) The contractor must insert or have inserted the substance of this clause, including paragraph (g), in subcontracts at all tiers that involve research.

CLAUSE I.83 - DEAR 952.242-70 TECHNICAL DIRECTION (DEC 2000)

(a) Performance of the work under this contract shall be subject to the technical direction of the DOE Contracting Officer's Representative (COR). The term "technical direction" is defined to include, without limitation:

(1) Providing direction to the contractor that redirects contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details, or otherwise serve to accomplish the contractual Statement of Work.

(2) Providing written information to the contractor that assists in interpreting drawings, specifications, or technical portions of the work description.

(3) Reviewing and, where required by the contract, approving, technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government.

(b) The contractor will receive a copy of the written COR designation from the contracting officer. It will specify the extent of the COR's authority to act on behalf of the contracting officer.

(c) Technical direction must be within the scope of work stated in the contract. The COR does not have the authority to, and may not, issue any technical direction that:

(1) Constitutes an assignment of additional work outside the Statement of Work;

(2) Constitutes a change as defined in the contract clause entitled "Changes;"

(3) In any manner causes an increase or decrease in the total estimated contract cost, the fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions or specifications of the contract; or

(5) Interferes with the contractor's right to perform the terms and conditions of the contract.

(d) All technical direction shall be issued in writing by the COR.

(e) The contractor must proceed promptly with the performance of technical direction duly issued by the COR in the manner prescribed by this clause and within its authority under the provisions of this clause. If, in the opinion of the contractor, any instruction or direction by the COR falls within one of the categories defined in (c)(1) through (c)(5) of this clause, the contractor must not proceed and must notify the Contracting Officer in writing within five (5) working days after receipt of any such instruction or direction and must request the Contracting Officer to modify the contract accordingly. Upon receiving the notification from the contractor, the Contracting Officer must:

(1) Advise the contractor in writing within thirty (30) days after receipt of the contractor's letter that the technical direction is within the scope of the contract effort and does not constitute a change under the Changes clause of the contract;

(2) Advise the contractor in writing within a reasonable time that the Government will issue a written change order; or

(3) Advise the contractor in writing within a reasonable time not to proceed with the instruction or direction of the COR.

(f) A failure of the contractor and Contracting Officer either to agree that the technical direction is within the scope of the contract or to agree upon the contract action to be taken with respect to the technical direction will be subject to the provisions of the clause entitled "Disputes."

CLAUSE I.84 – DEAR 952.247-70 FOREIGN TRAVEL (JUN 2010)

Contractor foreign travel shall be conducted pursuant to the requirements contained in Department of Energy (DOE) Order 551.1C, or its successor, Official Foreign Travel, or its successor in effect at the time of award.

CLAUSE I.85 - DEAR 952.250-70 NUCLEAR HAZARDS INDEMNITY AGREEMENT (OCT 2005)

(a) *Authority.* This clause is incorporated into this contract pursuant to the authority contained in subsection 170d. of the Atomic Energy Act of 1954, as amended (hereinafter called the Act.)

(b) *Definitions.* The definitions set out in the Act shall apply to this clause.

(c) *Financial protection.* Except as hereafter permitted or required in writing by DOE, the contractor will not be required to provide or maintain, and will not provide or maintain at Government expense, any form of financial protection to cover public liability, as described in paragraph (d)(2) below. DOE may, however, at any time require in writing that the contractor provide and maintain financial protection of such a type and in such amount as DOE shall determine to be appropriate to cover such public liability, provided that the costs of such financial protection are reimbursed to the contractor by DOE.

(d) (1) *Indemnification.* To the extent that the contractor and other persons indemnified are not compensated by any financial protection permitted or required by DOE, DOE will indemnify the contractor and other persons indemnified against (i) claims for public liability as described in subparagraph (d)(2) of this clause; and (ii) such legal costs of the contractor and other persons indemnified as are approved by DOE, provided that DOE's liability, including such legal costs, shall not exceed the amount set forth in section 170d. of the Act, as that amount may be increased in accordance with section 170t., in the aggregate for each nuclear incident or precautionary evacuation occurring within the United States or $500 million in the aggregate for each nuclear incident occurring outside the United

States, irrespective of the number of persons indemnified in connection with this contract.

(2) The public liability referred to in subparagraph (d)(1) of this clause is public liability as defined in the Act which (i) arises out of or in connection with the activities under this contract, including transportation; and (ii) arises out of or results from a nuclear incident or precautionary evacuation, as those terms are defined in the Act.

(e) (1) *Waiver of Defenses.* In the event of a nuclear incident, as defined in the Act, arising out of nuclear waste activities, as defined in the Act, the contractor, on behalf of itself and other persons indemnified, agrees to waive any issue or defense as to charitable or governmental immunity.

(2) In the event of an extraordinary nuclear occurrence which:

(i) Arises out of, results from, or occurs in the course of the construction, possession, or operation of a production or utilization facility; or

(ii) Arises out of, results from, or occurs in the course of transportation of source material, by-product material, or special nuclear material to or from a production or utilization facility; or

(iii) Arises out of or results from the possession, operation, or use by the contractor or a subcontractor of a device utilizing special nuclear material or by-product material, during the course of the contract activity; or

(iv) Arises out of, results from, or occurs in the course of nuclear waste activities, the contractor, on behalf of itself and other persons indemnified, agrees to waive:

(A) Any issue or defense as to the conduct of the claimant (including the conduct of persons through whom the claimant derives its cause of action) or fault of persons indemnified, including, but not limited to:

1. Negligence;

2. Contributory negligence;

3. Assumption of risk; or

4. Unforeseeable intervening causes, whether involving the conduct of a third person or an act of God;

(B) Any issue or defense as to charitable or governmental immunity; and

(C) Any issue or defense based on any statute of limitations, if suit is instituted within 3 years from the date on which the claimant first knew, or reasonably could have known, of his injury or change and the cause thereof. The waiver of any such issue or defense shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action. The waiver shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified.

(v) The term *extraordinary nuclear occurrence* means an event which DOE has determined to be an extraordinary nuclear occurrence as defined in the Act. A determination of whether or not there has been an extraordinary nuclear occurrence will be made in accordance with the procedures in 10 CFR part 840.

(vi) For the purposes of that determination, "offsite" as that term is used in 10 CFR part 840 means away from "the contract location" which phrase means any DOE facility, installation, or site at which contractual activity under this contract is being carried on, and any contractor-owned or controlled facility, installation, or site at which the contractor is engaged in the performance of contractual activity under this contract.

(3) The waivers set forth above:

(i) Shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action;

(ii) Shall be judicially enforceable in accordance with its terms by the claimant against the person indemnified;

(iii) Shall not preclude a defense based upon a failure to take reasonable steps to mitigate damages;

(iv) Shall not apply to injury or damage to a claimant or to a claimant's property which is intentionally sustained by the claimant or which results from a nuclear incident intentionally and wrongfully caused by the claimant;

(v) Shall not apply to injury to a claimant who is employed at the site of and in connection with the activity where the extraordinary nuclear occurrence takes place, if benefits therefor are either payable or required to be provided under any workmen's compensation or occupational disease law;

(vi) Shall not apply to any claim resulting from a nuclear incident occurring outside the United States;

(vii) Shall be effective only with respect to those obligations set forth in this clause and in insurance policies, contracts or other proof of financial protection; and

(viii) Shall not apply to, or prejudice the prosecution or defense of, any claim or portion of claim which is not within the protection afforded under (A) the limit of liability provisions under subsection 170e. of the Act, and (B) the terms of this agreement and the terms of insurance policies, contracts, or other proof of financial protection.

(f) *Notification and litigation of claims.* The contractor shall give immediate written notice to DOE of any known action or claim filed or made against the contractor or other person indemnified for public liability as defined in paragraph (d)(2). Except as otherwise directed by DOE, the contractor shall furnish promptly to DOE, copies of all pertinent papers received by the contractor or filed with respect to such actions or claims.

DOE shall have the right to, and may collaborate with, the contractor and any other person indemnified in the settlement or defense of any action or claim and shall have the right to (1) require the prior approval of DOE for the payment of any claim that DOE may be required to indemnify hereunder; and (2) appear through the Attorney General on behalf of the contractor or other person indemnified in any action brought upon any claim that DOE may be required to indemnify hereunder, take charge of such action, and settle or defend any such action. If the settlement or defense of any such action or claim is undertaken by DOE, the contractor or other person indemnified shall furnish all reasonable assistance in effecting a settlement or asserting a defense.

(g) *Continuity of DOE obligations.* The obligations of DOE under this clause shall not be affected by any failure on the part of the contractor to fulfill its obligation under this contract and shall be unaffected by the death, disability, or termination of existence of the contractor, or by the completion, termination or expiration of this contract.

(h) *Effect of other clauses.* The provisions of this clause shall not be limited in any way by, and shall be interpreted without reference to, any other clause of this contract, including the clause entitled Contract Disputes, provided, however, that this clause shall be subject to the clauses entitled Covenant Against Contingent Fees, and Accounts, records, and inspection, and any provisions that are later added to this contract as required by applicable Federal law, including statutes, executive orders and regulations, to be included in Nuclear Hazards Indemnity Agreements.

(i) *Civil penalties.* The contractor and its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to civil penalties, pursuant to section 234A of the Act, for violations of applicable DOE nuclear-safety related rules, regulations, or orders. If the contractor is a not-for-profit contractor, as defined by section 234Ad.(2), the total amount of civil penalties paid shall not exceed the total amount of fees paid within any 1-year period (as determined by the Secretary) under this contract.

(j) *Criminal penalties.* Any individual director, officer, or employee of the contractor or of its subcontractors and suppliers who are indemnified under the provisions of this clause are subject to criminal penalties, pursuant to section 223(c) of the Act, for knowing and willful violation of the Atomic Energy Act of 1954, as amended, and applicable DOE nuclear safety-related rules, regulations or orders which violation results in, or, if undetected, would have resulted in a nuclear incident.

(k) *Inclusion in subcontracts.* The contractor shall insert this clause in any subcontract which may involve the risk of public liability, as that term is defined in the Act and further described in paragraph (d)(2) above.
However, this clause shall not be included in subcontracts in which the subcontractor is subject to Nuclear Regulatory Commission (NRC) financial protection requirements under section 170b. of the Act or NRC agreements of indemnification under section 170c. or k. of the Act for the activities under the subcontract.

CLAUSE I.86 – DEAR 952.251-70 CONTRACTOR EMPLOYEE TRAVEL DISCOUNTS (AUG 2009)

(a) The Contractor shall take advantage of travel discounts offered to Federal Contractor employee travelers by AMTRAK, hotels, motels, or car rental companies, when use of such discounts would result in lower overall trip costs

and the discounted services are reasonably available. Vendors providing these services may require the Contractor employee to furnish them a letter of identification signed by the authorized Contracting Officer.

(b) Contracted airlines. Contractors are not eligible for GSA contract city pair fares.

(c) Discount rail service. AMTRAK voluntarily offers discounts to Federal travelers on official business and sometimes extends those discounts to Federal contractor employees.

(d) Hotels/motels. Many lodging providers extend their discount rates for Federal employees to Federal contractor employees.

(e) Car rentals. Surface Deployment and Distribution Command (SDDC) of the Department of Defense negotiates rate agreements with car rental companies that are available to Federal travelers on official business. Some car rental companies extend those discounts to Federal contractor employees.

(f) Obtaining travel discounts.

(1) To determine which vendors offer discounts to Government contractors, the Contractor may review commercial publications such as the Official Airline guides Official Traveler, Innovata, or National Telecommunications. The Contractor may also obtain this information from GSA contract Travel Management Centers or the Department of Defense's Commercial Travel Offices.

(2) The vendor providing the service may require the Government contractor to furnish a letter signed by the Contracting Officer. The following illustrates a standard letter of identification.

OFFICIAL AGENCY LETTERHEAD

TO: Participating Vendor

SUBJECT: OFFICIAL TRAVEL OF GOVERNMENT CONTRACTOR

(FULL NAME OF TRAVELER), the bearer of this letter is an employee of (COMPANY NAME) which has a contract with this agency under Government contract (CONTRACT NUMBER). During the period of the contract (GIVE DATES), AND WITH THE APPROVAL OF THE CONTRACT VENDOR, the employee is eligible and authorized to use available travel discount rates in accordance with Government contracts and/or agreements. Government Contract City Pair fares are not available to Contractors.

SIGNATURE,

Title and telephone number of Contracting Officer

CLAUSE I.87 – DEAR 970.5203-1 MANAGEMENT CONTROLS (JUN 2007) (DEVIATION)

(a) (1) The Contractor shall be responsible for maintaining, as an integral part of its organization, effective systems of management controls for both administrative and programmatic functions. Management controls comprise the plan of organization, methods, and procedures adopted including consideration of outsourcing of functions by management to reasonably ensure that: the mission and functions assigned to the Contractor are properly executed; efficient and effective operations are promoted; resources are safeguarded against waste, loss, mismanagement, unauthorized use, or misappropriation; all encumbrances and costs that are incurred under the contract and fees that are earned are in compliance with applicable clauses and other current terms, conditions, and intended purposes; all collections accruing to the Contractor in connection with the work under this contract, expenditures, and all other transactions and assets are properly recorded, managed, and reported; and financial, statistical, and other reports necessary to maintain accountability and managerial control are accurate, reliable, and timely.

(2) The systems of controls employed by the Contractor shall be documented and satisfactory to DOE.

(3) Such systems shall be an integral part of the Contractor's management functions, including defining specific roles and responsibilities for each level of management, and holding employees accountable for the adequacy of the management systems and controls in their areas of assigned responsibility.

(4) The Contractor shall, as part of the internal audit program required elsewhere in this contract, periodically review the management systems and controls employed in programs and administrative areas to ensure that they are adequate to provide reasonable assurance that the objectives of the systems are being accomplished and that these systems and controls are working effectively. Annually, or at other intervals directed by the Contracting Officer, the Contractor shall supply to the Contracting Officer copies of the reports reflecting the status of recommendations resulting from management audits performed by its internal audit activity and any other audit organization. This requirement may be satisfied in part by the reports required under paragraph (i) of 48 CFR 970.5232-3, Accounts, records, and inspection.

(b) The Contractor shall be responsible for maintaining, as a part of its operational responsibilities, a baseline quality assurance program that implements documented performance, quality standards, and control and assessment techniques.

(c) On an annual basis, the Contractor, through an officer at a level above the Laboratory Director, shall submit an assurance to the Contracting Officer that the system of management controls, including all systems revised in accordance with the clause of this Contract entitled, "Application of DOE Contractor Requirements Documents", is adequate to assure that the objectives of the management system are being accomplished and that the system and controls are effective and efficient.

CLAUSE I.88 - DEAR 970.5203-2 PERFORMANCE IMPROVEMENT AND COLLABORATION (MAY 2006)

(a) The contractor agrees that it shall affirmatively identify, evaluate, and institute practices, where appropriate, that will improve performance in the areas of environmental and health, safety, scientific and technical, security, business and administrative, and any other areas of performance in the management and operation of the contract.

This may entail the alteration of existing practices or the institution of new procedures to more effectively or efficiently perform any aspect of contract performance or reduce overall cost of operation under the contract. Such improvements may result from changes in organization, outsourcing decisions, simplification of systems while retaining necessary controls, or any other approaches consistent with the statement of work and performance measures of this contract.

(b) The contractor agrees to work collaboratively with the Department, all other management and operating, DOE major facilities management contractors and affiliated contractors which manage or operate DOE sites or facilities for the following purposes: (i) to exchange information generally, (ii) to evaluate concepts that may be of benefit in resolving common issues, in confronting common problems, or in reducing costs of operations, and (iii) to otherwise identify and implement DOE-complex-wide management improvements discussed in paragraph (a). In doing so, it shall also affirmatively provide information relating to its management improvements to such contractors, including lessons learned, subject to security considerations and the protection of data proprietary to third parties.

(c) The contractor may consult with the contracting officer in those instances in which improvements being considered pursuant to paragraph (a) involve the cooperation of the DOE. The contractor may request the assistance of the contracting officer in the

communication of the success of improvements to other management and operating contractors in accordance with paragraph (b) of this clause.

(d) The contractor shall notify the contracting officer and seek approval where necessary to fulfill its obligations under the contract. Compliance with this clause in no way alters the obligations of the Contractor under any other provision of this contract.

CLAUSE I.89 - DEAR 970.5203-3 CONTRACTOR'S ORGANIZATION (DEC 2000)

(a) Organization chart. As promptly as possible after the execution of this contract, the contractor shall furnish to the contracting officer a chart showing the names, duties, and organization of key personnel (see 48 CFR 952.215-70) and managerial personnel (see 48 CFR 970.5245-1 (j)) to be employed in connection with the work, and shall furnish supplemental information to reflect any changes as they occur.

(b) Supervisory representative of contractor. Unless otherwise directed by the contracting officer, a competent full-time resident supervisory representative of the contractor satisfactory to the contracting officer shall be in charge of the work at the site, and any work off-site, at all times.

(c) Control of employees. The contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary. In the event the contractor fails to remove any employee from the contract work whom DOE deems incompetent, careless, or insubordinate, or whose continued employment on the work is deemed by DOE to be inimical to the Department's mission, the contracting officer may require, with the approval of the Secretary of Energy, the contractor to remove the employee from work under the contract. This includes the right to direct the contractor to remove its most senior key person from work under the contract for serious contract performance deficiencies.

(d) Standards and procedures. The contractor shall establish such standards and procedures as are necessary to implement the requirements set forth in 48 CFR 970.0371. Such standards and procedures shall be subject to the approval of the contracting officer.

CLAUSE I.89A - DEAR 970.5204-1 COUNTERINTELLIGENCE (DEC 2010) (DEVIATION)

(a) The contractor shall take all reasonable precautions in the work under this contract to protect DOE programs, facilities, technology, personnel, unclassified sensitive information and classified matter from foreign intelligence threats and activities conducted for governmental or industrial purposes, in accordance with DOE Order 475.1, Counterintelligence Program; or its successor, Executive Order 12333, U.S. Intelligence Activities; and other pertinent national and Department Counterintelligence requirements.

(b) The contractor shall identify a qualified (i.e., Access Authorized-cleared) employee to serve as the Counterintelligence Point-of-Contact, who will communicate with the Chicago Office Counterintelligence Program Manager and perform the functions identified in the Counterintelligence Support Plan between DOE and the contractor.

CLAUSE I.90 - DEAR 970.5204-2 LAWS, REGULATIONS AND DOE DIRECTIVES (DEC 2000) (DEVIATION)

(a) In performing work under this contract, the contractor shall comply with the requirements of applicable Federal, State, and local laws and regulations (including DOE regulations), unless relief has been granted in writing by the appropriate regulatory agency. A List of Applicable Laws and Regulations (Appendix I/List A) may be appended to this contract for information purposes. Omission of any applicable law or regulation from Appendix I/List A does not affect the obligation of the contractor to comply with such law or regulation pursuant to this paragraph.

(b) The Contractor will perform the work of this Contract in accordance with each of the Contractor Requirements Documents (CRDs) appended to this Contract as "Appendix I", until such time as the Contracting Officer approves the substitution of an alternative procedure, standard, system of oversight, or assessment mechanism resulting from the process described in the clause of this contract, entitled, "Application of DOE Contractor Requirements Documents".

(c) Except as otherwise directed by the Contracting Officer, the contractor shall procure all necessary permits or licenses required for the performance of work under this contract.

(d) Regardless of the performer of the work, the contractor is responsible for compliance with the requirements of this clause. The contractor is responsible for flowing down the requirements of this clause to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements.

CLAUSE I.91 - DEAR 970.5204-3 ACCESS TO AND OWNERSHIP OF RECORDS (OCT 2014)

(a) *Government-owned records.* Except as provided in paragraph (b) of this clause, all records acquired or generated by the contractor in its performance of this contract, including records series described within the contract as Privacy Act systems of records, shall be the property of the Government and shall be maintained in accordance with 36 CFR, Chapter XII, Subchapter B, "Records Management." The contractor shall ensure records classified as Privacy Act system of records are maintained in accordance with FAR 52.224.2 "Privacy Act."

(b) *Contractor-owned records.* The following records are considered the property of the contractor and are not within the scope of paragraph (a) of this clause. [The contracting officer shall identify which of the following categories of records will be included in the clause, excluding records operated and maintained in DOE Privacy Act system of records].

(1) Employment-related records (such as worker's compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns; records generated during the course of responding to allegations of research misconduct; records generated during other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel and medical/health-related records and similar files), and non-employee patient medical/health-related records, excluding records operated and maintained by the Contractor in Privacy Act system of records. Employee-related systems of record may include, but are not limited to: Employee Relations Records (DOE-3), Personnel Records of Former Contractor Employees (DOE-5), Payroll and Leave Records (DOE-13), Report of Compensation (DOE-14), Personnel Medical Records (DOE-33), Employee Assistance Program (EAP) Records (DOE-34) and Personnel Radiation Exposure Records (DOE-35).

(2) Confidential contractor financial information, internal corporate governance records and correspondence between the contractor and other segments of the contractor located away from the DOE facility (i.e., the contractor's corporate headquarters);

(3) Records relating to any procurement action by the contractor, except for records that under 48 CFR 970.5232-3 are described as the property of the Government; and

(4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges; and

(5) The following categories of records maintained pursuant to the technology transfer clause of this contract:

(i) Executed license agreements, including exhibits or appendices containing information on royalties, royalty rates, other financial information, or commercialization plans, and all related documents, notes and correspondence.

(ii) The contractor's protected Cooperative Research and Development Agreement (CRADA) information and appendices to a CRADA that contain licensing terms and conditions, or royalty or royalty rate information.

(iii) Patent, copyright, mask work, and trademark application files and related contractor invention disclosures, documents and correspondence, where the contractor has elected rights or has permission to assert rights and has not relinquished such rights or turned such rights over to the Government.

(c) *Contract completion or termination.* Upon contract completion or termination, the contractor shall ensure final disposition of all Government-owned records to a Federal Record Center, the National Archives and Records Administration, to a successor contractor, its designee, or other destinations, as directed by the Contracting Officer. Upon the request of the Government, the contractor shall provide either the original contractor-owned records or copies of the records identified in paragraph (b) of this clause, to DOE or its designees, including successor contractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable federal laws (including the Privacy Act) as appropriate. If the contractor chooses to provide its original contractor-owned records to the Government or its designee, the contractor shall retain future rights to access and copy such records as needed.

(d) *Inspection, copying, and audit of records.* All records acquired or generated by the Contractor under this contract in the possession of the Contractor, including those described at paragraph (b) of this clause, shall be subject to inspection, copying, and audit by the Government or its designees at all reasonable times, and the Contractor shall afford the Government or its designees reasonable facilities for such inspection, copying, and audit; provided, however, that upon request by the Contracting Officer, the Contractor shall deliver such records to a location specified by the Contracting Officer for inspection, copying, and audit. The Government or its designees shall use such records in accordance with applicable federal laws (including the Privacy Act), as appropriate.

(e) *Applicability.* This clause applies to all records created, received and maintained by the contractor without regard to the date or origination of such records including all records acquired from a predecessor contractor.

(f) *Records maintenance and retention.* Contractor shall create, maintain, safeguard, and disposition records in accordance with 36 CFR Chapter XII, Subchapter B, “Records Management” and the National Archives and Records Administration (NARA)-approved Records Disposition Schedules. Records retention standards are applicable for all classes of

records, whether or not the records are owned by the Government or the contractor. The Government may waive application of the NARA-approved Records Disposition Schedules, if, upon termination or completion of the contract, the Government exercises its right under paragraph (c) of this clause to obtain copies of records described in paragraph (b) and delivery of records described in paragraph (a) of this clause.

(g) *Subcontracts.* The contractor shall include the requirements of this clause in all subcontracts that contain the *Integration of Environment, Safety and Health into Work Planning and Execution* clause at 952.223-71 or, the *Radiation Protection and Nuclear Criticality* clause at 952.223-72.
(End of clause)

CLAUSE I.92 - DEAR 970.5208-1 PRINTING (DEC 2000)

(a) To the extent that duplicating or printing services may be required in the performance of this contract, the Contractor shall provide or secure such services in accordance with the Government Printing and Binding Regulations, Title 44 of the U.S. Code, and DOE Directives relative thereto.

(b) The term "Printing" includes the following processes: composition, platemaking, presswork, binding, microform publishing, or the end items produced by such processes. Provided, however, that performance of a requirement under this contract involving the duplication of less than 5,000 copies of a single page, or no more than 25,000 units in the aggregate of multiple pages, will not be deemed to be printing.

(c) Printing services not obtained in compliance with this guidance shall result in the cost of such printing being disallowed.

(d) The Contractor shall include the substance of this clause in all subcontracts hereunder which require printing (as that term is defined in Title I of the U.S. Government Printing and Binding Regulations).

CLAUSE I.92A – DEAR 970.5211-1 WORK AUTHORIZATION (MAY 2007)

(a) Work authorization proposal. Prior to the start of each fiscal year, the Contracting Officer or designee shall provide the contractor with program execution guidance in sufficient detail to enable the contractor to develop an estimated cost, scope, and schedule. In addition, the Contracting Officer may unilaterally assign work. The contractor shall submit to the Contracting Officer or other designated official, a detailed description of work, a budget of estimated costs, and a schedule of performance for the work it recommends be undertaken during that upcoming fiscal year.

(b) Cost estimates. The contractor and the Contracting Officer shall establish a budget of estimated costs, description of work, and schedule of performance for each work assignment. If agreement cannot be reached as to scope, schedule, and estimated cost, the Contracting Officer may issue a unilateral work authorization, pursuant to this clause. The work authorization, whether issued bilaterally or unilaterally shall become part of the contract.

No activities shall be authorized or costs incurred prior to Contracting Officer issuance of a work authorization or direction concerning continuation of activities of the contract.

(c) Performance. The contractor shall perform work as specified in the work authorization, consistent with the terms and conditions of this contract.

(d) Modification. The Contracting Officer may at any time, without notice, issue changes to work authorizations within the overall scope of the contract. A proposal for adjustment in estimated costs and schedule for performance of work, recognizing work made unnecessary as a result, along with new work, shall be submitted by the contractor in accordance with paragraph (a) of this clause. Resolution shall be in accordance with paragraph (b) of this clause.

(e) Increase in estimated cost. The contractor shall notify the Contracting Officer immediately whenever the cost incurred, plus the projected cost to complete work is projected to differ (plus or minus) from the estimate by 10 percent. The contractor shall submit a proposal for modification in accordance with paragraph (a) of this clause. Resolution shall be in accordance with paragraph (b) of this clause.

(f) Expenditure of funds and incurrence of costs. The expenditure of monies by the contractor in the performance of all authorized work shall be governed by the "Obligation of Funds" or equivalent clause of the contract.

(g) Responsibility to achieve environment, safety, health, and security compliance. Notwithstanding other provisions of the contract, the contractor may, in the event of an emergency, take that corrective action necessary to sustain operations consistent with applicable environmental, safety, health, and security statutes, regulations, and procedures. If such action is taken, the contractor shall notify the Contracting Officer within 24 hours of initiation and, within 30 days, submit a proposal for adjustment in estimated costs and schedule established in accordance with paragraphs (a) and (b) of this clause.

CLAUSE I.93 - DEAR 970.5215-1 TOTAL AVAILABLE FEE: BASE FEE AMOUNT AND PERFORMANCE FEE AMOUNT (DEC 2000) (ALTERNATES II AND IV) (DEC 2000)

(a) *Total available fee.* Total available fee, consisting of a base fee amount (which may be zero) and a performance fee amount (consisting of an incentive fee component for objective performance requirements, an award fee component for subjective performance requirements, or both) determined in accordance with the provisions of this clause, is available for payment in accordance with the clause of this contract entitled, "Payments and advances."

(b) *Fee Negotiations.* Prior to the beginning of each fiscal year under this contract, or other appropriate period as mutually agreed upon and, if exceeding one year, approved by the Senior Procurement Executive, or designee, the contracting officer and Contractor shall enter into negotiation of the requirements for the year or appropriate period, including the evaluation areas and individual requirements subject to incentives, the total available fee, and the allocation of fee. The contracting officer shall modify this contract at the conclusion of each negotiation to reflect the negotiated requirements, evaluation areas and individual requirements subject to incentives, the total available fee, and the allocation of fee. In the event the parties fail to agree on the requirements, the evaluation areas and individual requirements subject to incentives, the total available fee, or the allocation of fee, a unilateral determination will be made by the contracting officer. The total available fee amount shall be allocated to a twelve month cycle composed of one or more evaluation periods, or such longer period as may be mutually agreed to between the parties and approved by the Senior Procurement Executive, or designee.

(c) *Determination of Total Available Fee Amount Earned.*

(1) The Government shall, at the conclusion of each specified evaluation period, evaluate the contractor's performance of all requirements, including performance based incentives completed during the period, and determine the total available fee amount earned. At the contracting officer's discretion, evaluation of incentivized performance may occur at the scheduled completion of specific incentivized requirements.

(2) The DOE Operations/Field Office Manager, or designee, will be the Manager, Fermi Site Office. The contractor agrees that the determination as to the total available fee earned is a unilateral determination made by the Head of Contracting Activity, or designee.

(3) The evaluation of contractor performance shall be in accordance with the Performance Evaluation and Measurement Plan(s) described in subparagraph (d) of this clause unless otherwise set forth in the contract. The Contractor shall be promptly advised in writing of the fee determination, and the basis of the fee determination. In the event that the contractor's performance is considered to be less than the level of

performance set forth in the Statement of Work, as amended to include the current Work Authorization Directive or similar document, for any contract requirement, it will be considered by the DOE Operations/Field Office Manager, or designee, who may at his/her discretion adjust the fee determination to reflect such performance. Any such adjustment shall be in accordance with the clause entitled, "Conditional Payment of Fee, Profit, or Incentives" if contained in the contract.

(4) Award fee not earned during the evaluation period shall not be allocated to future evaluation periods.

(d) *Performance Evaluation and Measurement Plan(s).* To the extent not set forth elsewhere in the contract:

(1) The Government shall establish a Performance Evaluation and Measurement Plan(s) upon which the determination of the total available fee amount earned shall be based. The Performance Evaluation and Measurement Plan(s) will address all of the requirements of contract performance specified in the contract directly or by reference. A copy of the Performance Evaluation and Measurement Plan(s) shall be provided to the Contractor:

(i) prior to the start of an evaluation period if the requirements, evaluation areas, specific incentives, amount of fee, and allocation of fee to such evaluation areas and specific incentives have been mutually agreed to by the parties; or

(ii) not later than thirty days prior to the scheduled start date of the evaluation period, if the requirements, evaluation areas, specific incentives, amount of fee, and allocation of fee to such evaluation areas and specific incentives have been unilaterally established by the contracting officer.

(2) The Performance Evaluation and Measurement Plan(s) will set forth the criteria upon which the Contractor will be evaluated relating to any technical, schedule, management, and/or cost objectives selected for evaluation. Such criteria should be objective, but may also include subjective criteria. The Plan(s) shall also set forth the method by which the total available fee amount will be allocated and the amount earned determined.

(3) The Performance Evaluation and Measurement Plan(s) may, consistent with the contract statement of work, be revised during the period of performance. The contracting officer shall notify the contractor:

(i) of such unilateral changes at least ninety calendar days prior to the end of the affected evaluation period and at least thirty calendar days prior to the effective date of the change;

(ii) of such bilateral changes at least sixty calendar days prior to the end of the affected evaluation period; or

(iii) if such change, whether unilateral or bilateral, is urgent and high priority, at least thirty calendar days prior to the end of the evaluation period.

(e) *Schedule for total available fee amount earned determinations*. The DOE Operations/Field Office Manager, or designee, shall issue the final total available fee amount earned determination in accordance with: the schedule set forth in the Performance Evaluation and Measurement Plan(s); or as otherwise set forth in this contract. However, a determination must be made within sixty calendar days after the receipt by the contracting officer of the Contractor's self-assessment, if one is required or permitted by paragraph (f) of this clause, or seventy calendar days after the end of the evaluation period, whichever is later, or a longer period if the Contractor and contracting officer agree. If the contracting officer evaluates the Contractor's performance of specific requirements on their completion, the payment of any earned fee amount must be made within seventy calendar days (or such other time period as mutually agreed to between the contracting officer and the Contractor) after such completion. If the determination is delayed beyond that date, the Contractor shall be entitled to interest on the determined total available fee amount earned at the rate established by the Secretary of the Treasury under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) that is in effect on the payment date. This rate is referred to as the "Renegotiation Board Interest Rate," and is published in the Federal Register semiannually on or about January 1 and July 1. The interest on any late total available fee amount earned determination will accrue daily and be compounded in 30-day increments inclusive from the first day after the schedule determination date through the actual date the determination is issued. That is, interest accrued at the end of any 30-day period will be added to the determined amount of fee earned and be subject to interest if not paid in the succeeding 30-day period.

(f) *Contractor self-assessment.* Following each evaluation period, the Contractor may submit a self-assessment, provided such assessment is submitted within 45 calendar days after the end of the period. This self-assessment shall address both the strengths and weaknesses of the Contractor's performance during the evaluation period. Where deficiencies in performance are noted, the Contractor shall describe the actions planned or taken to correct such deficiencies and avoid their recurrence. The

DOE Operations/Field Office Manager, or designee, will review the Contractor's self-assessment, if submitted, as part of its independent evaluation of the Contractor's management during the period. A self-assessment, in and of itself may not be the only basis for the award fee determination.

CLAUSE I.94 – DEAR 970.5215-3 CONDITIONAL PAYMENT OF FEE, PROFIT, OR INCENTIVES – FACILITY MANAGEMENT CONTRACTS (AUG 2009) (ALTERNATE I) (AUG 2009)

(a) General.

(1) The payment of earned fee, fixed fee, profit, or share of cost savings under this contract is dependent upon the Contractor's or Contractor employees' compliance with the terms and conditions of this contract relating to environment, safety and health (ES&H), which includes worker safety and health (WS&H), including performance under an approved Integrated Safety Management System (ISMS).

(2) The ES&H performance requirements of this contract are set forth in its ES&H terms and conditions, including the DOE approved contractor ISMS or similar document. Financial incentives for timely mission accomplishment or cost effectiveness shall never compromise or impede full and effective implementation of the ISMS and full ES&H compliance.

(3) If the Contractor does not meet the performance requirements of this contract relating to ES&H during any performance evaluation period established under the contract pursuant to the clause of his contract entitled, "Total Available Fee: Base Fee Amount and Performance Fee Amount," otherwise earned fee, fixed fee, profit or share of cost savings may be unilaterally reduced by the Contracting Officer.

(b) Reduction Amount.

(1) The amount of earned fee, fixed fee, profit, or share of cost savings that may be unilaterally reduced will be determined by the severity of the performance failure pursuant to the degrees specified in paragraphs (c) of this clause.

(2) If a reduction of earned fee, fixed fee, profit, or share of cost savings is warranted, unless mitigating factors apply, such reduction shall not be less than 26% nor greater than 100% of the amount of earned fee, fixed fee, profit, or the Contractor's share of cost savings for a first degree performance failure, not less than 11% nor greater than 25% for a second degree performance failure, and up to 10% for a third degree performance failure.

(3) In determining the amount of the reduction and the applicability of mitigating factors, the contracting officer must consider the Contractor's overall performance in meeting the ES&H requirements of the contract. Such consideration must include performance against any site specific performance criteria/requirements that provide additional definition, guidance for the amount of reduction, or guidance for the applicability of mitigating factors. In all cases, the contracting officer must consider mitigating factors that may warrant a reduction below the applicable range (see 48 CFR 970.1504-1-2). The mitigating factors include the following:

(i) Degree of control the Contractor had over the event or incident.

(ii) Efforts the Contractor had made to anticipate and mitigate the possibility of the event in advance.

(ii) Contractor self-identification and response to the event to mitigate impacts and recurrence.

(iv) General status (trend and absolute performance) of: ES&H and compliance in related areas.

(v) Contractor demonstration to the Contracting Officer's satisfaction that the principles of industrial ES&H standards are routinely practiced (e.g., Voluntary Protection Program Star Status, or ISO 14000 Certification).

(vi) Event caused by "Good Samaritan" act by the Contractor (e.g., offsite emergency response).

(vii) Contractor demonstration that a performance measurement system is routinely used to improve and maintain ES&H performance (including effective resource allocation) and to support DOE corporate decision-making (e.g., policy, ES&H programs).

(viii) Contractor demonstration that an Operating Experience and Feedback Program is functioning that demonstrably affects continuous improvement in ES&H by use of lessons learned and best practices inter- and intra-DOE sites.

(4)(i) The amount of fee, fixed fee, profit, or share of cost savings that is otherwise earned by a contractor during an evaluation period may be reduced in accordance with this clause if it is determined that a performance failure warranting a reduction under this clause occurs within the evaluation period.

(ii) The amount of reduction under this clause, in combination with any reduction made under any other clause in the contract, shall not exceed the amount of fee, fixed fee, profit, or the Contractor's share of cost savings that is otherwise earned during the evaluation period.

(iii) For the purposes of this clause, earned fee, fixed fee, profit, or share of cost savings for the evaluation period shall mean the amount determined by the contracting officer or fee 109 determination official as otherwise payable based on the Contractor's performance during the evaluation period. Where the contract provides for financial incentives that extend beyond a single evaluation period, this amount shall also include: any provisional amounts determined otherwise payable in the evaluation period; and, if provisional payments are not provided for, the allocable amount of any incentive determined otherwise payable at the conclusion of a subsequent evaluation period. The allocable amount shall be the total amount of the earned incentive divided by the number of evaluation periods over which it was earned.

(iv) The Government will effect the reduction as soon as practicable after the end of the evaluation period in which the performance failure occurs. If the Government is not aware of the failure, it will effect the reduction as soon as practical after becoming aware. For any portion of the reduction requiring an allocation the Government will effect the reduction at the end of the evaluation period in which it determines the total amount earned under the incentive. If at any time a reduction causes the sum of the payments the Contractor has received for fee, fixed fee, profit, or share of cost savings to exceed the sum of fee, fixed fee, profit, or share of cost savings the Contractor has earned (provisionally or otherwise), the Contractor shall immediately return the excess to the Government. (What the Contractor “has earned” reflects any reduction made under this or any other clause of the contract.)

(v) At the end of the contract—

(A) The Government will pay the Contractor the amount by which the sum of fee, fixed fee, profit, or share of cost savings the Contractor has earned exceeds the sum of the payments the Contractor has received; or

(B) The Contractor shall return to the Government the amount by which the sum of the payments the Contractor has received exceeds the sum of fee, fixed fee, profit, or share of cost savings the Contractor has earned. (What the Contractor “has earned" reflects any reduction made under this or any other clause of the contract.)

(C) Environment, Safety and Health (ES&H). Performance failures occur if the Contractor does not comply with the contract's ES&H terms and conditions, including the DOE approved Contractor ISMS. The degrees of performance failure under which reductions of earned or fixed fee, profit, or share of cost savings will be determined are:

(1) First Degree: Performance failures that are most adverse to ES&H. Failure to develop and obtain required DOE approval of an ISMS is considered first degree. The Government will perform necessary review of the ISMS in a timely manner and will not unreasonably withhold approval of the Contractor's ISMS. The following performance failures or performance failures of similar import will be considered first degree.

(i) Type A accident (defined in DOE Order 225.1A).

(ii) Two Second Degree performance failures during an evaluation period.

(2) Second Degree: Performance failures that are significantly adverse to ES&H. They include failures to comply with an approved ISMS that result in an actual injury, exposure, or exceedence that occurred or nearly occurred but had minor practical long-term health consequences. They also include breakdowns of the Safety Management System. The following performance failures or performance failures of similar import will be considered second degree:

(i) Type B accident (defined in DOE Order 225.1A).

(ii) Non-compliance with an approved ISMS that results in a near miss of a Type A or B accident. A near miss is a situation in which an inappropriate action occurs, or a necessary action is omitted, but does not result in an adverse effect.

(iii) Failure to mitigate or notify DOE of an imminent danger situation after discovery, where such notification is a requirement of the contract.

(3) Third Degree: Performance failures that reflect a lack of focus on improving ES&H. They include failures to comply with an approved ISMS that result in potential breakdown of the System. The following performance failures or performance failures of similar import will be considered third degree:

(i) Failure to implement effective corrective actions to address deficiencies/non-compliances documented through: external (e.g.,

Federal) oversight and/or reported per DOE Order 231.1-2 requirements; or internal oversight of DOE Order 440.1A requirements.

(ii) Multiple similar non-compliances identified by external (e.g., Federal) oversight that in aggregate indicate a significant programmatic breakdown.

(iii) Non-compliances that either have, or may have, significant negative impacts to the worker, the public, or the environment or that indicate a significant programmatic breakdown.

(iv) Failure to notify DOE upon discovery of events or conditions where notification is required by the terms and conditions of the contract.

CLAUSE I.95 - DEAR 970.5217-1 STRATEGIC PARTNERSHIP PROJECTS PROGRAM (NON-DOE FUNDED WORK)(April 23, 2015)

(a) *Authority to perform Strategic Partnership Projects.* Pursuant to the Economy Act of 1932, as amended (31 U.S.C. 1535), and the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 *et seq.*) or other applicable authority, the Contractor may perform work for non-DOE entities (sponsors) on a fully reimbursable basis in accordance with this clause.

(b) *Contractor's implementation.* The Contractor must draft, implement, and maintain formal policies, practices, and procedures in accordance with this clause, which must be submitted to the Contracting Officer for review and approval.

(c) *Conditions of participation in Strategic Partnership Projects program.* The Contractor—

(1) Must not perform Strategic Partnership Projects activities that would place it in direct competition with the domestic private sector;

(2) Must not respond to a request for proposals or any other solicitation from another Federal agency or non-Federal organization that involves direct comparative competition, either as an offeror, team member, or subcontractor to an offeror; however, the Contractor may, following notification to the Contracting Officer, respond to Broad Agency Announcements, Financial Assistance solicitations, and similar solicitations from another Federal Agency or non-Federal organizations when the selection is based on merit or peer review, the work involves basic or applied research to further advance scientific knowledge or understanding, and a response does not result in direct, comparative competition;

(3) Must not commence work on any Strategic Partnership Projects activity until a Strategic Partnership Projects proposal package has been approved by the DOE Contracting Officer or designated representative;

(4) Must not incur project costs until receipt of DOE notification that a budgetary resource is available for the project, except as provided in 48 CFR 970.5232-6;

(5) Must ensure that all costs associated with the performance of the work, including specifically all DOE direct costs and applicable surcharges, are included in any Strategic Partnership Projects proposal;

(6) Must maintain records for the accumulation of costs and the billing of such work to ensure that DOE's appropriated funds are not used in support of Strategic Partnership Projects activities and to provide an accounting of the expenditures to DOE and the sponsor upon request;

(7) Must perform all Strategic Partnership Projects in accordance with the standards, policies, and procedures that apply to performance under this contract, including but not limited to environmental, safety and health, security, safeguards and classification procedures, and human and animal research regulations;

(8) May subcontract portion(s) of a Work for Others project; however, the Contractor must select the subcontractor and the work to be subcontracted. Any subcontracted work must be in direct support of the DOE Contractor's performance as defined in the DOE approved Strategic Partnership Projects proposal package; and,

(9) Must maintain a summary listing of project information for each active Strategic Partnership Projects project, consisting of—

(i) Sponsoring agency;

(ii) Total estimated costs;

(iii) Project title and description;

(iv) Project point of contact; and,

(v) Estimated start and completion dates.

(d) *Negotiation and execution of Strategic Partnership Projects agreement.* (1) When delegated authority by the Contracting Officer, the Contractor may negotiate the terms and conditions that will govern the performance of a specific Strategic Partnership Projects project. Such terms and conditions must be consistent with the terms, conditions, and requirements of the Contractor's contract with DOE. The Contractor may use DOE-approved contract terms and conditions as delineated in DOE Manual 481.1-1A or terms and conditions previously approved by the responsible Contracting Officer or authorized designee for agreements with non-Federal entities. The Contractor must not hold itself

out as representing DOE when negotiating the proposed Strategic Partnership Projects agreement.

(2) The Contractor must submit all Strategic Partnership Projects agreements to the DOE Contracting Officer for DOE review and approval. The Contractor may not execute any proposed agreement until it has received notice of DOE approval.

(e) *Preparation of project proposals.* When the Contractor proposes to perform Strategic Partnership Projects activities pursuant to this clause, it may assist the project sponsor in the preparation of project proposal packages including the preparation of cost estimates.

(f) *Strategic Partnership Projects appraisals.* DOE may conduct periodic appraisals of the Contractor's compliance with its Strategic Partnership Projects Program policies, practices and procedures. The Contractor must provide facilities and other support in conjunction with such appraisals as directed by the Contracting Officer or authorized designee.

(g) *Annual Strategic Partnership Projects report.* The Contractor must provide assistance as required by the Contracting Officer or authorized designee in the preparation of a DOE Annual Summary Report of Strategic Partnership Projects Activities under the contract.

(End of clause)

CLAUSE I.96 - DEAR 970.5222-1 COLLECTIVE BARGAINING AGREEMENTS -- MANAGEMENT AND OPERATING CONTRACTS (DEC 2000)

When negotiating collective bargaining agreements applicable to the work force under this contract, the Contractor shall use its best efforts to ensure such agreements contain provisions designed to assure continuity of services. All such agreements entered into during the contract period of performance should provide that grievances and disputes involving the interpretation or application of the agreement will be settled without resorting to strike, lockout, or other interruption of normal operations. For this purpose, each collective bargaining agreement should provide an effective grievance procedure with arbitration as its final step, unless the parties mutually agree upon some other method of assuring continuity of operations. As part of such agreements, management and labor should agree to cooperate fully with the Federal Mediation and Conciliation Service. The contractor shall include the substance of this clause in any subcontracts for protective services or other services performed on the DOE-owned site which will affect the continuity of operation of the facility.

CLAUSE I.97 - DEAR 970.5222-2 OVERTIME MANAGEMENT (DEC 2000)

(a) The Contractor shall maintain adequate internal controls to ensure that employee overtime is authorized only if cost effective and necessary to ensure performance of work under this contract.

(b) The Contractor shall notify the Contracting Officer when in any given year it is likely that overtime usage as a percentage of payroll may exceed 4%.

(c) The Contracting Officer may require the submission, for approval, of a formal annual overtime control plan whenever Contractor overtime usage as a percentage of payroll has exceeded, or is likely to exceed, 4%, or if the Contracting Officer otherwise deems overtime expenditures excessive. The plan shall include, at a minimum:

(1) An overtime premium fund (maximum dollar amount);
(2) Specific controls for casual overtime for non-exempt employees;
(3) Specific parameters for allowability of exempt overtime;
(4) An evaluation of alternatives to the use of overtime; and
(5) Submission of a semi-annual report that includes for exempt and non-exempt employees:
  (i) Total cost of overtime;
  (ii) Total cost of straight time;
  (iii) Overtime cost as a percentage of straight-time cost;
  (iv) Total overtime hours;
  (v) Total straight-time hours; and
  (vi) Overtime hours as a percentage of straight-time hours.

CLAUSE I.98 - DEAR 970.5223-1 INTEGRATION OF ENVIRONMENT, SAFETY, AND HEALTH INTO WORK PLANNING AND EXECUTION (DEC 2000)

(a) For the purposes of this clause,

(1) Safety encompasses environment, safety and health, including pollution prevention and waste minimization; and

(2) Employees include subcontractor employees.

(b) In performing work under this contract, the contractor shall perform work safely, in a manner that ensures adequate protection for employees, the public, and the environment, and shall be accountable for the safe performance of work. The contractor shall exercise a degree of care commensurate with the work and the associated hazards.
The contractor shall ensure that management of environment, safety and health (ES&H) functions and activities becomes an integral but visible part of the contractor's work planning and execution processes. The contractor shall, in the performance of work, ensure that:

(1) Line management is responsible for the protection of employees, the public, and the environment. Line management includes those contractor and subcontractor employees managing or supervising employees performing work.

(2) Clear and unambiguous lines of authority and responsibility for ensuring (ES&H) are established and maintained at all organizational levels.

(3) Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.

(4) Resources are effectively allocated to address ES&H, programmatic, and operational considerations. Protecting employees, the public, and the environment is a priority whenever activities are planned and performed.

(5) Before work is performed, the associated hazards are evaluated and an agreed-upon set of ES&H standards and requirements are established which, if properly implemented, provide adequate assurance that employees, the public, and the environment are protected from adverse consequences.

(6) Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards. Emphasis should be on designing the work and/or controls to reduce or eliminate the hazards and to prevent accidents and unplanned releases and exposures.

(7) The conditions and requirements to be satisfied for operations to be initiated and conducted are established and agreed-upon by DOE and the contractor. These agreed-upon conditions and requirements are requirements of the contract and binding upon the contractor. The extent of documentation and level of authority for agreement shall be tailored to the complexity and hazards associated with the work and shall be established in a Safety Management System.

(c) The contractor shall manage and perform work in accordance with a documented Safety Management System (System) that fulfills all conditions in paragraph (b) of this clause at a minimum. Documentation of the System shall describe how the contractor will:

(1) Define the scope of work;

(2) Identify and analyze hazards associated with the work;

(3) Develop and implement hazard controls;

(4) Perform work within controls; and

(5) Provide feedback on adequacy of controls and continue to improve safety management.

(d) The System shall describe how the contractor will establish, document, and implement safety performance objectives, performance measures, and commitments in response to DOE program and budget execution guidance while maintaining the integrity of the System. The System shall also describe how the contractor will measure system effectiveness.

(e) The contractor shall submit to the contracting officer documentation of its System for review and approval. Dates for submittal, discussions, and revisions to the System will be established by the contracting officer. Guidance on the preparation, content, review, and approval of the System will be provided by the contracting officer. On an annual basis, the contractor shall review and update, for DOE approval, its safety performance objectives, performance measures, and commitments consistent with and in response to DOE's program and budget execution guidance and direction.
Resources shall be identified and allocated to meet the safety objectives and performance commitments as well as maintain the integrity of the entire System. Accordingly, the System shall be integrated with the contractor's business processes for work planning, budgeting, authorization, execution, and change control.

(f) The contractor shall comply with, and assist the Department of Energy in complying with, ES&H requirements of all applicable laws and regulations, and applicable directives identified in the clause of this contract entitled “Laws, Regulations, and DOE Directives.” The contractor shall cooperate with Federal and non-Federal agencies having jurisdiction over ES&H matters under this contract.

(g) The contractor shall promptly evaluate and resolve any noncompliance with applicable ES&H requirements and the System. If the contractor fails to provide resolution or if, at any time, the contractor's acts or failure to act causes substantial harm or an imminent danger to the environment or health and safety of employees or the public, the contracting officer may issue an order stopping work in whole or in part. Any stop work order issued by a contracting officer under this clause (or issued by the contractor to a subcontractor in accordance with paragraph (i) of this clause) shall be without prejudice to any other legal or contractual rights of the

Government. In the event that the contracting officer issues a stop work order, an order authorizing the resumption of the work may be issued at the discretion of the contracting officer. The contractor shall not be entitled to an extension of time or additional fee or damages by reason of, or in connection with, any work stoppage ordered in accordance with this clause.

(h) Regardless of the performer of the work, the contractor is responsible for compliance with the ES&H requirements applicable to this contract. The contractor is responsible for flowing down the ES&H requirements applicable to this contract to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements.

(i) The contractor shall include a clause substantially the same as this clause in subcontracts involving complex or hazardous work on site at a DOE-owned or -leased facility. Such subcontracts shall provide for the right to stop work under the conditions described in paragraph (g) of this clause. Depending on the complexity and hazards associated with the work, the contractor may choose not to require the subcontractor to submit a Safety Management System for the contractor's review and approval.

CLAUSE I.99 - RESERVED

CLAUSE I.100 - DEAR 970.5223-4 WORKPLACE SUBSTANCE ABUSE PROGRAMS AT DOE SITES (DEC 2010)

(a) Program Implementation. The contractor shall, consistent with 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites, incorporated herein by reference with full force and effect, develop, implement, and maintain a workplace substance abuse program.

(b) Remedies. In addition to any other remedies available to the Government, the contractor's failure to comply with the requirements of 10 CFR part 707 or to perform in a manner consistent with its approved program may render the contractor subject to: the suspension of contract payments, or, where applicable, a reduction in award fee; termination for default; and suspension or debarment.

(c) Subcontracts.

(1) The contractor agrees to notify the contracting officer reasonably in advance of, but not later than 30 days prior to, the award of any subcontract the contractor believes may be subject to the requirements of 10 CFR part 707, unless the contracting officer agrees to a different date.

(2) The DOE prime contractor shall require all subcontracts subject to the provisions of 10 CFR part 707 to agree to develop and implement a workplace substance abuse program that complies with the requirements of 10 CFR part 707, Workplace Substance Abuse Programs at DOE Sites, as a condition for award of the subcontract. The DOE prime contractor shall review and approve each subcontractor's program, and shall periodically monitor each subcontractor's implementation of the program for effectiveness and compliance with 10 CFR part 707.

(3) The contractor agrees to include, and require the inclusion of, the requirements of this clause in all subcontracts, at any tier, that are subject to the provisions of 10 CFR part 707.

CLAUSE I.101 - RESERVED

CLAUSE I.101A –DEAR 970.5223-6 EXECUTIVE ORDER 13423, STRENGTHENING FEDERAL ENVIRONMENTAL, ENERGY, AND TRANSPORTATION MANAGEMENT (OCT 2010)

Since this contract involves Contractor operation of Government-owned facilities and/or motor vehicles, the provisions of Executive Order 13423 are applicable to the Contractor to the same extent they would be applicable if the Government were operating the facilities or motor vehicles. Information on the requirements of the Executive Order may be found at http://www.archives.gov/federal-register/executive-orders/.

CLAUSE I.101B – DEAR 970-5223-7 SUSTAINABLE ACQUISITION PROGRAM (OCT 2010)

(a) Pursuant to Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management, and Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, the Department of Energy (DOE) is committed to managing its facilities in an environmentally preferable and sustainable manner that will promote the natural environment and protect the health and well being of its Federal employees and contractor service providers. In the performance of work under this contract, the Contractor shall provide its services in a manner that promotes the natural environment, reduces greenhouse gas emissions and protects the health and well being of Federal employees, contract service providers and visitors using the facility.

(b) Green purchasing or sustainable acquisition has several interacting initiatives. The Contractor must comply with initiatives that are current as of the contract award date. DOE may require compliance with revised initiatives from time to time. The Contractor may request as equitable adjustment to the terms of its

contract using the procedures at 48 CFR 970.5243-1 Changes. The initiatives important to these Orders are explained on the following Government or Industry Internet Sites:

(1) Recycled Content Products are described at http://epa.gov/cpg.
(2) Biobased products are described at http://www.biopreferred.gov/.
(3) Energy efficient products are at http://energystar.gov/products for Energy Star products.
(4) Energy efficient products are at http://www.femp.energy.gov/procurement for FEMP designated products.
(5) Environmentally preferable and energy efficient electronics including desktop computers, laptops and monitors are at http://www.epeat.net the Electronic Products Environmental Assessment Tool (EPEAT) the Green Electronics Council site.
(6) Greenhouse gas emission inventories are required, including Scope 3 emissions which include contractor emissions. These are discussed at Section 13 of Executive Order 13514 which can be found at http://www.archives.gov/federal-register/executive-orders/disposition.html.
(7) Non-Ozone Depleting Alternative Products are at http://www.epa.gov/ozone/strathome.html.
(8) Water efficient plumbing products are at http://epa.gov/watersense.

(c) The clauses at FAR 52.223-2, Affirmative Procurement of Biobased Products under Service and Construction Contracts, 52.223-15, Energy Efficiency in Energy Consuming products, and 52.223-17 Affirmative procurement of EPA-Designated items in Service and Construction Contracts, require the use of products that have biobased content, are energy efficient, or have recycled content. To the extent that the services provided by the Contractor require provision of any of the above types of products, the Contractor must provide the energy efficient and environmentally sustainable type of product unless that type of product—

(1) Is not available;
(2) Is not life cycle cost effective (or does not exceed 110% of the price of alternative items if life cycle cost data is unavailable), EPEAT is an example of lifecycle costs that have been analyzed by DOE and found to be acceptable at the silver and gold level;
(3) Does not meet performance needs; or,
(4) Cannot be delivered in time to meet a critical need.

(d) In the performance of this contract, the Contractor shall comply with the requirements of Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management,

(http://www.epa.gov/greeningepa/practices/eo13423.htm) and Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic performance (http://www.archives.gov/federal-register/executive-orders/disposition.html). The Contractor shall also consider the best practices within the DOE Acquisition Guide, Chapter 23, Acquisition Considerations Regarding Federal leadership in Environmental, Energy, and Economic Performance. This guide includes information concerning recycled content products, biobased products, energy efficient products, water efficient products, alternative fuels and vehicles, non ozone depleting substances and other environmentally preferable products and services. This guide is available on the internet at: http://management.energy.gov/documents/AcqGuide23pt0Rev1.pdf.

(e) Contractors must establish and maintain a documented energy management program which includes requirements for energy and water efficient equipment, EnergyStar or WaterSense, as applicable and procedures for verification of purchases, following the criteria in DOE Order 430.2B, Departmental Energy, Renewable Energy, and Transportation management, Attachment 1, or its successor. This requirement should not be flowed down to subcontractors.

(f) In complying with the requirements of paragraph (c) of this clause, the Contractor shall coordinate its activities with and submit required reports through the Environmental Sustainability Coordinator or equivalent position.

(g) The Contractor shall prepare and submit performance reports using prescribed DOE formats, at the end of the Federal fiscal year, on matters related to the acquisition of environmentally preferable and sustainable products and services. This is a material delivery under the contract. Failure to perform this requirement may be considered a failure that endangers performance of this contract and may result in termination for default (see FAR 52.249-6, Termination (Cost Reimbursement)).

(h) These provisions shall be flowed down only to first tier subcontracts exceeding the simplified acquisition threshold that support operation of the DOE facility and offer significant subcontracting opportunities for energy efficient or environmentally sustainable products or services. The Subcontractor will comply with the procedures in paragraphs (c) through (f) of this clause regarding the collection of all data necessary to generate the reports required under paragraphs (c) through (f) of this clause, and submit the reports directly to the Prime Contractor's Environmental Sustainability Coordinator at the supported facility. The Subcontractor will advise the Contractor if it is unable to procure energy efficient and environmentally sustainable items and cite which of the reasons in paragraph (c) of this clause apply. The reports may be submitted at the conclusion of the subcontract term provided that the subcontract delivery term is not multi-

year in nature. If the delivery term is multi-year, the Subcontractor shall report its accomplishments for each Federal fiscal year in a manner and at a time or times acceptable to both parties. Failure to comply with these reporting requirements may be considered a breach of contract with attendant consequences.

(i) When this clause is used in a subcontract, the word "Contractor" will be understood to mean "Subcontractor."

CLAUSE I.102 - DEAR 970.5226-1 DIVERSITY PLAN (DEC 2000)

The Contractor shall submit a Diversity Plan to the Contracting Officer for approval within 90 days after the effective date of this contract (or contract modification, if appropriate). The Contractor shall submit an update to its Plan annually or with its annual fee proposal. Guidance for preparation of a Diversity Plan is provided in Appendix M. The Plan shall include innovative strategies for increasing opportunities to fully use the talents and capabilities of a diverse work force. The Plan shall address, at a minimum, the Contractor's approach for promoting diversity through (1) the Contractor's work force, (2) educational outreach, (3) community involvement and outreach, (4) subcontracting, (5) economic development (including technology transfer), and (6) the prevention of profiling based on race or national origin.

CLAUSE I.103 - DEAR 970.5226-3 COMMUNITY COMMITMENT (DEC 2000)

It is the policy of the DOE to be a constructive partner in the geographic region in which DOE conducts its business. The basic elements of this policy include: (1) recognizing the diverse interests of the region and its stakeholders, (2) engaging regional stakeholders in issues and concerns of mutual interest, and (3) recognizing that giving back to the community is a worthwhile business practice. Accordingly, the Contractor agrees that its business operations and performance under the Contract will be consistent with the intent of the policy and elements set forth above.

CLAUSE I.104 - DEAR 970.5227-2 RIGHTS IN DATA-TECHNOLOGY TRANSFER (DEC 2000)(DEVIATION: AL-2006-10)

(a) *Definitions.* (1) Computer data bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

(2) Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae, and related material that would

enable the computer program to be produced, created, or compiled. The term does not include computer data bases.

(3) Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term "data" does not include data incidental to the administration of this contract, such as financial, administrative, cost and pricing, or management information.

(4) Limited rights data, as used in this clause, means data, other than computer software, developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged. The Government's rights to use, duplicate, or disclose limited rights data are as set forth in the Limited Rights Notice of paragraph (h) of this clause.

(5) Restricted computer software, as used in this clause, means computer software developed at private expense and that is a trade secret; is commercial or financial and is confidential or privileged; or is published copyrighted computer software, including minor modifications of any such computer software. The Government's rights to use, duplicate, or disclose restricted computer software are as set forth in the Restricted Rights Notice of subparagraph (i) of this clause.

(6) Technical data, as used in this clause, means recorded data, regardless of form or characteristic, that are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

(7) Unlimited rights, as used in this clause, means the rights of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, including by electronic means, and perform publicly and display publicly, in any manner, including by electronic means, and for any purpose whatsoever, and to have or permit others to do so.

(8) Open Source Software, as used in this clause, means computer software that is distributed under a license in which the user is granted the rights to use, copy, modify, prepare derivative works and distribute, in source code or other format, the software, in original or modified form and derivative works thereof, without having to make royalty payments. The Contractor’s right to distribute computer software first produced in the performance of this Contract as Open Source Software is as set forth in paragraph (f).

(b) *Allocation of Rights.* (1) The Government shall have:

(i) Ownership of all technical data and computer software first produced in the performance of this Contract;

(ii) Unlimited rights in technical data and computer software specifically used in the performance of this Contract, except as provided herein regarding copyright, limited rights data, or restricted computer software, and except for data subject to the withholding provisions for protected Cooperative Research and Development Agreement (CRADA) information in accordance with Technology Transfer actions under this Contract, or other data specifically protected by statute for a period of time or, where, approved by DOE, appropriate instances of the DOE Strategic Partnership Projects Program;

(iii) The right to inspect technical data and computer software first produced or specifically used in the performance of this Contract at all reasonable times. The Contractor shall make available all necessary facilities to allow DOE personnel to perform such inspection;

(iv) The right to have all technical data and computer software first produced or specifically used in the performance of this Contract delivered to the Government or otherwise disposed of by the Contractor, either as the contracting officer may from time to time direct during the progress of the work or in any event as the contracting officer shall direct upon completion or termination of this Contract. The Contractor agrees to leave a copy of such data at the facility or plant to which such data relate, and to make available for access or to deliver to the Government such data upon request by the contracting officer. If such data are limited rights data or restricted computer software. The rights of the Government in such data shall be governed solely by the provisions of paragraph (h) of this clause ("Rights in Limited Rights Data") or paragraph (i) of this clause ("Rights in Restricted Computer Software"); and (v) The right to remove, cancel, correct, or ignore any markings not authorized by the terms of this Contract on any data furnished hereunder if, in response to a written inquiry by DOE concerning the propriety of the markings, the Contractor fails to respond thereto within 60 days or fails to substantiate the propriety of the markings. In either case DOE will notify the Contractor of the action taken.

(2) The Contractor shall have:

(i) The right to withhold limited rights data and restricted computer software unless otherwise provided in provisions of this clause;

(ii) The right to use for its private purposes, subject to patent, security or other provisions of this Contract, data it first produces in the performance of this Contract, except for data in DOE's Uranium Enrichment Technology, including diffusion, centrifuge, and atomic vapor laser isotope separation, provided the data requirements of this Contract have been met as of the date of the private use of such data; and

(iii) The right to assert copyright subsisting in scientific and technical articles as provided in paragraph (d) of this clause and the right to request permission to assert copyright subsisting in works other than scientific and technical articles as provided in paragraph (e) of this clause.

(3) The Contractor agrees that for limited rights data or restricted computer software or other technical business or financial data in the form of recorded information which it receives from, or is given access to by DOE or a third party, including a DOE contractor or subcontractor, and for technical data or computer software it first produces under this Contract which is authorized to be marked by DOE, the Contractor shall treat such data in accordance with any restrictive legend contained thereon.

(c) *Copyright (General).* (1) The Contractor agrees not to mark, register, or otherwise assert copyright in any data in a published or unpublished work, other than as set forth in paragraphs (d) and (e) of this clause.

(2) Except for material to which the Contractor has obtained the right to assert copyright in accordance with either paragraph (d) or (e) of this clause, the Contractor agrees not to include in the data delivered under this Contract any material copyrighted by the Contractor and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in paragraph (d) of this clause. If the Contractor believes that such copyrighted material for which the license cannot be obtained must be included in the data to be delivered, rather than merely incorporated therein by reference, the Contractor shall obtain the written authorization of the contracting officer to include such material in the data prior to its delivery.

(d) *Copyrighted Works (Scientific and Technical Articles).* (1) The Contractor shall have the right to assert, without prior approval of the contracting officer, copyright subsisting in scientific and technical articles composed under this contract or based on or containing data first produced in the performance of this Contract, and published in academic, technical or professional journals, symposia, proceedings, or similar works. When assertion of copyright is made, the Contractor shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including contract number) on the data when such data are delivered to the Government as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. The Contractor grants to the Government, and others acting on its behalf, a nonexclusive, paid-up, irrevocable, world-wide license in such copyrighted data to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government.

(2) The contractor shall mark each scientific or technical article first produced or composed under this Contract and submitted for journal publication or similar means of

dissemination with a notice, similar in all material respects to the following, on the front reflecting the Government's non-exclusive, paid-up, irrevocable, world-wide license in the copyright.

Notice: This manuscript has been authored by Fermi Research Alliance, LLC under Contract No. DE-AC02-07CH11359 with the U.S. Department of Energy. The United States Government retains and the publisher, by accepting the article for publication, acknowledges that the United States Government retains a non-exclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this manuscript, or allow others to do so, for United States Government purposes.

(End of Notice)

(3) The title to the copyright of the original of unclassified graduate theses and the original of related unclassified scientific papers shall vest in the author thereof, subject to the right of DOE to retain duplicates of such documents and to use such documents for any purpose whatsoever without any claim on the part of the author or the contractor for additional compensation.

(e) *Copyrighted Works (Other Than Scientific and Technical Articles and Data Produced under a CRADA).* The Contractor may obtain permission to assert copyright subsisting in technical data and computer software first produced by the Contractor in performance of this Contract, where the Contractor can show that commercialization would be enhanced by such copyright protection, subject to the following:

(1) Contractor Request to Assert Copyright.

(i) For data other than scientific and technical articles and data produced under a CRADA, the Contractor shall submit in writing to Patent Counsel its request to assert copyright in data first produced in the performance of this Contract pursuant to this clause. The right of the Contractor to copyright data first produced under a CRADA is as described in the individual CRADA. Each request by the Contractor must include:

(A) The identity of the data (including any computer program) for which the Contractor requests permission to assert copyright, as well as an abstract which is descriptive of the data and is suitable for dissemination purposes, (B) The program under which it was funded, (C) Whether, to the best knowledge of the Contractor, the data is subject to an international treaty or agreement, (D) Whether the data is subject to export control, (E) A statement that the Contractor plans to commercialize the data in compliance with the clause of this contract entitled, "Technology Transfer Mission," within five (5) years after obtaining permission to assert copyright or, on a case-by-case basis, a specified longer period where the Contractor can demonstrate that the ability to commercialize effectively is dependent upon such longer period, and (F) For data other

than computer software, a statement explaining why the assertion of copyright is necessary to enhance commercialization and is consistent with DOE's dissemination responsibilities.

(ii) For data that is developed using other funding sources in addition to DOE funding, the permission to assert copyright in accordance with this clause must also be obtained by the Contractor from all other funding sources prior to the Contractor's request to Patent Counsel. The request shall include the Contractor's certification or other documentation acceptable to Patent Counsel demonstrating such permission has been obtained.

(iii) Permission for the Contractor to assert copyright in excepted categories of data as determined by DOE will be expressly withheld. Such excepted categories include data whose release (A) would be detrimental to national security, i.e., involve classified information or data or sensitive information under Section 148 of the Atomic Energy Act of 1954, as amended, or are subject to export control for nonproliferation and other nuclear-related national security purposes, (B) would not enhance the appropriate transfer or dissemination and commercialization of such data, (C) would have a negative impact on U.S. industrial competitiveness, (D) would prevent DOE from meeting its obligations under treaties and international agreements, or (E) would be detrimental to one or more of DOE's programs. Additional excepted categories may be added by the Assistant General Counsel for Technology Transfer and Intellectual Property. Where data are determined to be under export control restriction, the Contractor may obtain permission to assert copyright subject to the provisions of this clause for purposes of limited commercialization in a manner that complies with export control statutes and applicable regulations. In addition, notwithstanding any other provision of this Contract, all data developed with Naval Reactors' funding and those data that are classified fall within excepted categories. The rights of the Contractor in data are subject to the disposition of data rights in the treaties and international agreements identified under this Contract as well as those additional treaties and international agreements which DOE may from time to time identify by unilateral amendment to the Contract; such amendment listing added treaties and international agreements is effective only for data which is developed after the date such treaty or international agreement is added to this Contract. Also, the Contractor will not be permitted to assert copyright in data in the form of various technical reports generated by the Contractor under the Contract without first obtaining the advanced written permission of the contracting officer.

(2) DOE Review and Response to Contractor's Request. The Patent Counsel shall use its best efforts to respond in writing within 90 days of receipt of a complete request by the Contractor to assert copyright in technical data and computer software pursuant to this clause. Such response shall either give or withhold DOE's permission for the Contractor to assert copyright or advise the Contractor that DOE needs additional time to respond, and the reasons therefore.

(3) Permission for Contractor to Assert Copyright.

(i) For computer software, the Contractor shall furnish to the DOE designated, centralized software distribution and control point, the Energy Science and Technology Software Center, at the time permission to assert copyright is given under paragraph (e)(2) of this clause: (A) An abstract describing the software suitable for publication, (B) the source code for each software program, and (C) the object code and at least the minimum support documentation needed by a technically competent user to understand and use the software. The Patent Counsel, for good cause shown by the Contractor, may allow the minimum support documentation to be delivered within 60 days after permission to assert copyright is given or at such time the minimum support documentation becomes available. The Contractor acknowledges that the DOE designated software distribution and control point may provide a technical description of the software in an announcement identifying its availability from the copyright holder.

(ii) Unless otherwise directed by the contracting officer, for data other than computer software to which the Contractor has received permission to assert copyright under paragraph (e)(2) of this clause above, the Contractor shall within sixty (60) days of obtaining such permission furnish to DOE's Office of Scientific and Technical Information (OSTI) a copy of such data as well as an abstract of the data suitable for dissemination purposes. The Contractor acknowledges that OSTI may provide an abstract of the data in an announcement to DOE, its contractors and to the public identifying its availability from the copyright holder.

(iii) For a five year period or such other specified period as specifically approved by Patent Counsel beginning on the date the Contractor is given permission to assert copyright in data, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, prepare derivative works and perform publicly and display publicly, by or on behalf of the Government. Upon request, the initial period may be extended after DOE approval. The DOE approval will be based on the standard that the work is still commercially available and the market demand is being met.

(iv) After the period approved by Patent Counsel for application of the limited Government license described in paragraph (e)(3)(iii) of this clause, or if, prior to the end of such period(s), the Contractor abandons commercialization activities pertaining to the data to which the Contractor has been given permission to assert copyright, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in such copyrighted data to reproduce, distribute copies to the public, prepare derivative works, perform publicly and display publicly, and to permit others to do so.

(v) Whenever the Contractor asserts copyright in data pursuant to this paragraph (e), the Contractor shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 on the copyrighted data and also an acknowledgment of the Government sponsorship and license rights of paragraphs (e)(3) (iii) and (iv) of this clause. Such action shall be taken when the data are delivered to the Government, published, licensed or deposited for registration as a published work in the U.S. Copyright Office. The acknowledgment of Government sponsorship and license rights shall be as follows:

Notice: These data were produced by Fermi Research Alliance, LLC under Contract No. DE-AC02-07CH11359 with the Department of Energy. For (period approved by DOE Patent Counsel) from (date permission to assert copyright was obtained), the Government is granted for itself and others acting on its behalf a nonexclusive, paid-up, irrevocable worldwide license in this data to reproduce, prepare derivative works, and perform publicly and display publicly, by or on behalf of the Government. There is provision for the possible extension of the term of this license. Subsequent to that period or any extension granted, the Government is granted for itself and others acting on its behalf a nonexclusive, paid-up, irrevocable worldwide license in this data to reproduce, prepare derivative works, distribute copies to the public, perform publicly and display publicly, and to permit others to do so. The specific term of the license can be identified by inquiry made to Contractor or DOE. NEITHER THE UNITED STATES NOR THE UNITED STATES DEPARTMENT OF ENERGY, NOR ANY OF THEIR EMPLOYEES, MAKES ANY WARRANTY, EXPRESS OR IMPLIED, OR ASSUMES ANY LEGAL LIABILITY OR RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS, OR USEFULNESS OF ANY DATA, APPARATUS, PRODUCT, OR PROCESS DISCLOSED, OR REPRESENTS THAT ITS USE WOULD NOT INFRINGE PRIVATELY OWNED RIGHTS.

(End of Notice)

(vi) With respect to any data to which the Contractor has received permission to assert copyright, the DOE has the right, during the five (5) year or specified longer period approved by Patent Counsel as provided for in paragraph (e) of this clause, to request the Contractor to grant a nonexclusive, partially exclusive or exclusive license in any field of use to a responsible applicant(s) upon terms that are reasonable under the circumstances, and if the Contractor refuses such request, to grant such license itself, if the DOE determines that the Contractor has not made a satisfactory demonstration that either it or its licensee(s) is actively pursuing commercialization of the data as set forth in subparagraph (e)(1)(A) of this clause. Before licensing under this subparagraph (vi), DOE shall furnish the Contractor a written request for the Contractor to grant the stated license, and the Contractor shall be allowed thirty (30) days (or such longer period as may be authorized by the contracting officer for good cause shown in writing by the Contractor) after such notice to show cause why the license should not be granted. The Contractor

shall have the right to appeal the decision of the DOE to grant the stated license to the Invention Licensing Appeal Board as set forth in 10 CFR 781.65 -- "Appeals."

(vii) No costs shall be allowable for maintenance of copyrighted data, primarily for the benefit of the Contractor and/or a licensee which exceeds DOE Program needs, except as expressly provided in writing by the contracting officer. The Contractor may use its net royalty income to effect such maintenance costs.

(viii) At any time the Contractor abandons commercialization activities for data for which the Contractor has received permission to assert copyright in accordance with this clause, it shall advise OSTI and Patent Counsel and upon request assign the copyright to the Government so that the Government can distribute the data to the public.

(4) The following notice may be placed on computer software prior to any publication and prior to the Contractor's obtaining permission from the Department of Energy to assert copyright in the computer software pursuant to paragraph (c)(3) of this section.

Notice: This computer software was prepared by Fermi Research Alliance LLC [insert the individual author’s name], hereinafter the Contractor, under Contract DE-AC02-07CH11359 with the Department of Energy (DOE). All rights in the computer software are reserved by DOE on behalf of the United States Government and the Contractor as provided in the Contract. You are authorized to use this computer software for Governmental purposes but it is not to be released or distributed to the public. NEITHER THE GOVERNMENT NOR THE CONTRACTOR MAKES ANY WARRANTY, EXPRESS OR IMPLIED, OR ASSUMES ANY LIABILITY FOR THE USE OF THIS SOFTWARE. This notice including this sentence must appear on any copies of this computer software.

(End of Notice)

(5) A similar notice can be used for data, other than computer software, upon approval of DOE Patent Counsel.

(f) *Open Source Software*. The Contractor may release computer software first produced by the Contractor in the performance of this Contract under an open source software license. Such software shall hereinafter be referred to as Open Source Software or OSS, subject to the following:

(1) Obtain Program Approval.

(i) The Contractor shall ensure that the DOE Program or Programs that have provided funding (Funding Source) to develop the software have approved the distribution of the software as OSS. The funding Program(s) may provide blanket

approval for all software developed with funding from that Program. However, OSS release for any one such software shall be subject to approval by all other funding Programs which provide a substantial portion of the funds for the software, if any. If approval from the funding Program(s) is not practicable, DOE Patent Counsel may provide approval instead. For software jointly developed under a CRADA or User Facility, authorization from the CRADA Participant(s) or User Facility User(s), as applicable, shall be additionally obtained for OSS release.

(ii) If the software is developed with funding from a federal government agency or agencies other than DOE, then authorization from all the funding source(s) shall be obtained for OSS release, if practicable. Such federal government agency(ies) may provide blanket approval for all software developed with funding from that agency. However, OSS release of any one of such software shall be subject to approval by all other funding sources for the software, if any. If majority approval from such federal government agency(s) is not practicable, DOE Patent Counsel may provide approval instead.

(2) Assert Copyright in the OSS. Once the Contractor has obtained Funding Source approval in accordance with subparagraph (1) of this section, copyright in the software to be distributed as OSS, may be asserted by the Contractor, or, for OSS developed under a CRADA or User Facility, either by the Contractor, CRADA Participant, or User Facility User, as applicable, which precludes marking such OSS as Protected Information.

(3) Form DOE F 241.4 for OSS to ESTSC. The Contractor must submit the form DOE F 241.4 (or the current form as may be required by DOE) to DOE's Energy Science and Technology Software Center (ESTSC) at the Office of Scientific and Technical Information (OSTI). The Contractor shall provide the unique URL on the form for ESTSC to distribute.

(4) OSS Record. The Contractor must maintain a record, available for inspection by DOE, of software distributed as OSS. The record shall contain the following information: (i) name of the computer software (or other identifier), (ii) an abstract with description or purpose of the software, (iii) evidence of the funding Program's or source's approval, (iv) the planned or actual OSS location on the Contractor's webpage or other publicly available location (see subparagraph (5) below); (v) any names, logos or other identifying marks used in connection with the OSS, whether or not registered; (vi) the type of OSS license used; and (vii) release version of the software for OSS containing derivative works. Upon request of Patent Counsel, the Contractor shall periodically provide Patent Counsel a copy of the record.

(5) Provide Public Access to the OSS. The Contractor shall ensure that the OSS is publicly accessible as an open source via the Contractor's website, Open Source Bulletin Boards operated by third parties, DOE, or other industry standard means.

(6) Select an OSS License. Each OSS will be distributed pursuant to an OSS license. The Contractor may choose among industry standard OSS licenses or create its own set of Contractor standard licenses. To assist the Contractor, the DOE Assistant General Counsel for Technology Transfer and Intellectual Property may periodically issue guidance on OSS licenses. Each Contractor created OSS license, must contain, at a minimum, the following provisions:

(i) A disclaimer or equivalent that disclaims the Government's and Contractor's liability for licensees' and third parties' use of the software; and

(ii) A grant of permission for licensee to distribute OSS containing the licensee's derivative works subject to trademark restrictions (see subparagraph (10) below). This provision might allow the licensee and third parties to commercialize their derivative works or might request that the licensee's derivative works be forwarded to the Contractor for incorporation into future OSS versions.

(7) Collection of administrative costs is permissible. However, the Contractor may not collect a royalty or other fee in excess of a good faith amount for cost recovery from any licensee for the Contractor's OSS.

(8) Relationship to Other Required Clauses in the Contract. OSS distributed in accordance with this section shall not be subject to the requirements relating to indemnification of the Contractor or Federal Government, U.S. Competitiveness and U.S. Preference as set forth in paragraphs (g) and (h) of the clause within this contract entitled Technology Transfer Mission (DEAR 970.5227-3). The requirement for Contractor to request permission to assert copyright for the purpose of engaging in licensing software for royalties as set forth elsewhere in this clause is not modified by this section.

(9) Performance of Periodic Export Control Reviews by the Contractor. The Contractor is required to follow its Export Control review procedures before designating any software as OSS. If the Contractor is integrating the original OSS with other copyrightable works created by the Contractor or third parties, the Contractor may need to perform periodic export control reviews of the derivative versions.

(10) Determine if Trademark Protection for the OSS is Appropriate. DOE Programs and Contractors have established trademarks on some of their computer software. Therefore, the Contractor should determine whether the OSS is already protected by use of an existing trademark. If the OSS is not so protected, then the Program or the Contractor may want to seek trademark protection. If the OSS is protected by a trademark, the OSS license should state that the derivative works of the licensee or other third party may not be distributed using the proprietary trademark without appropriate prior approval.

(11) Government License. For all OSS, the Contractor grants to the Government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable worldwide license in data copyrighted in accordance with paragraph (f)(2) of this clause to reproduce, distribute copies to the public, prepare derivative works, perform publicly and display publicly, and to permit others to do so.

(12) Availability of Original OSS. The object code and source code of the original OSS developed by the Contractor shall be available to any third party who requests such from the Contractor for so long as such OSS is publicly available. If the Contractor ceases to make the software publicly available, then the Contractor shall submit to ESTSC the object code and source code of the latest version of the OSS developed by the Contractor in addition to a revised DOE F 241.4 form (which includes an abstract) and the Contractor shall direct any inquiries from third parties seeking to obtain the original OSS to ESTSC.

(g) *Subcontracting.* (1) Unless otherwise directed by the contracting officer, the Contractor agrees to use in subcontracts in which technical data or computer software is expected to be produced or in subcontracts for supplies that contain a requirement for production or delivery of data in accordance with the policy and procedures of 48 CFR Subpart 27.4 as supplemented by 48 CFR 927.401 through 927.409, the clause entitled, "Rights in Data -- General" at 48 CFR 52.227-14 modified in accordance with 927.409(a) and including Alternate V. Alternates II through IV of that clause may be included as appropriate with the prior approval of DOE Patent Counsel, and the Contractor shall not acquire rights in a subcontractor's limited rights data or restricted computer software, except through the use of Alternates II or III, respectively, without the prior approval of DOE Patent Counsel. The clause at 48 CFR 52.227-16, Additional Data Requirements, shall be included in subcontracts in accordance with 48 CFR 927.409(h). The Contractor shall use instead the Rights in Data -- Facilities clause at 48 CFR 970.5227-1 in subcontracts, including subcontracts for related support services, involving the design or operation of any plants or facilities or specially designed equipment for such plants or facilities that are managed or operated under its contract with DOE.

(2) It is the responsibility of the Contractor to obtain from its subcontractors technical data and computer software and rights therein, on behalf of the Government, necessary to fulfill the Contractor's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government such rights, the Contractor shall:

(i) Promptly submit written notice to the contracting officer setting forth reasons or the subcontractor's refusal and other pertinent information which may expedite disposition of the matter, and

(ii) Not proceed with the subcontract without the written authorization of the contracting officer.

(3) Neither the Contractor nor higher-tier subcontractors shall use their power to award subcontracts as economic leverage to acquire rights in a subcontractor's limited rights data and restricted computer software for their private use.

(h) *Rights in Limited Rights Data.* Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable nonexclusive, paid-up license by or for the Government, in any limited rights data of the Contractor specifically used in the performance of this Contract, provided, however, that to the extent that any limited rights data when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Limited Rights Notice" set forth below. All such limited rights data shall be marked with the following "Limited Rights Notice:"

Limited Rights Notice

These data contain "limited rights data," furnished under Contract No. with the United States Department of Energy which may be duplicated and used by the Government with the express limitations that the "limited rights data" may not be disclosed outside the Government or be used for purposes of manufacture without prior permission of the Contractor, except that further disclosure or use may be made solely for the following purposes:

(a) Use (except for manufacture) by support services contractors within the scope of their contracts;

(b) This "limited rights data" may be disclosed for evaluation purposes under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

(c) This "limited rights data" may be disclosed to other contractors participating in the Government's program of which this Contract is a part for information or use (except for manufacture) in connection with the work performed under their contracts and under the restriction that the "limited rights data" be retained in confidence and not be further disclosed;

(d) This "limited rights data" may be used by the Government or others on its behalf for emergency repair or overhaul work under the restriction that the "limited rights data" be retained in confidence and not be further disclosed; and

(e) Release to a foreign government, or instrumentality thereof, as the interests of the United States Government may require, for information or evaluation, or for emergency repair or overhaul work by such government. This Notice shall be marked on any reproduction of this data in whole or in part.

(End of Notice)

(i) *Rights in Restricted Computer Software.* (1) Except as may be otherwise specified in this Contract as data which are not subject to this paragraph, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up, license by or for the Government, in any restricted computer software of the Contractor specifically used in the performance of this Contract; provided, however, that to the extent that any restricted computer software when furnished or delivered is specifically identified by the Contractor at the time of initial delivery to the Government or a representative of the Government, such data shall not be used within or outside the Government except as provided in the "Restricted Rights Notice" set forth below. All such restricted computer software shall be marked with the following "Restricted Rights Notice:"

Restricted Rights Notice -- Long Form

(a) This computer software is submitted with restricted rights under Department of Energy Contract No. DE-AC02-07CH11359. It may not be used, reproduced, or disclosed by the Government except as provided in paragraph (b) of this notice.

(b) This computer software may be:

(1) Used or copied for use in or with the computer or computers for which it was acquired, including use at any Government installation to which such computer or computers may be transferred;

(2) Used, copied for use, in a backup or replacement computer if any computer for which it was acquired is inoperative or is replaced;

(3) Reproduced for safekeeping (archives) or backup purposes;

(4) Modified, adapted, or combined with other computer software, provided that only the portions of the derivative software consisting of the restricted computer software are to be made subject to the same restricted rights; and

(5) Disclosed to and reproduced for use by contractors under a service contract (of the type defined in 48 CFR 37.101) in accordance with subparagraphs (b)(1) through (4) of

this Notice, provided the Government makes such disclosure or reproduction subject to these restricted rights.

(c) Notwithstanding the foregoing, if this computer software has been published under copyright, it is licensed to the Government, without disclosure prohibitions, with the rights set forth in the restricted rights notice above.

(d) This Notice shall be marked on any reproduction of this computer software, in whole or in part.

(End of Notice)

(2) Where it is impractical to include the Restricted Rights Notice on restricted computer software, the following short-form Notice may be used in lieu thereof:

Restricted Rights Notice -- Short Form

Use, reproduction, or disclosure is subject to restrictions set forth in the Long Form Notice of DOE Contract No. DE-AC02-07CH11359 with Fermi Research Alliance, LLC.

(End of Notice)

(3) If the software is embedded, or if it is commercially impractical to mark it with human readable text, then the symbol R and the clause date (mo/yr) in brackets or a box, a [R-mo/yr], may be used. This will be read to mean restricted computer software, subject to the rights of the Government as described in the Long Form Notice, in effect as of the date indicated next to the symbol. The symbol shall not be used to mark human readable material. In the event this Contract contains any variation to the rights in the Long Form Notice, then the contract number must also be cited.

(4) If restricted computer software is delivered with the copyright notice of 17 U.S.C. 401, the software will be presumed to be published copyrighted computer software licensed to the Government without disclosure prohibitions and with unlimited rights, unless the Contractor includes the following statement with such copyright notice "Unpublished -- rights reserved under the Copyright Laws of the United States."

(j) *Relationship to Patents.* Nothing contained in this clause creates or is intended to imply a license to the Government in any patent or is intended to be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

(End of Clause)

CLAUSE I.105 - DEAR 970.5227-3 TECHNOLOGY TRANSFER MISSION (AUG 2002) (DEVIATION: AL-2006-10)

This clause has as its purpose implementation of the National Competitiveness Technology Transfer Act of 1989 (Sections 3131, 3132, 3133, and 3157 of Pub. L. 101-189 and as amended by Pub. L. 103-160, Sections 3134 and 3160). The Contractor shall conduct technology transfer activities with a purpose of providing benefit from Federal research to U.S. industrial competitiveness.

(a) *Authority.* (1) In order to ensure the full use of the results of research and development efforts of, and the capabilities of, the Laboratory, technology transfer, including Cooperative Research and Development Agreements (CRADAs), is established as a mission of the Laboratory consistent with the policy, principles and purposes of Sections 11(a)(1) and 12(g) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a); Section 3132(b) of Pub. L. 101-189, Sections 3134 and 3160 of Pub. L. 103-160, and of Chapter 38 of the Patent Laws (35 U.S.C. 200 *et seq.*); Section 152 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2182); Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908); and Executive Order 12591 of April 10, 1987.

(2) In pursuing the technology transfer mission, the Contractor is authorized to conduct activities including but not limited to: identifying and protecting Intellectual Property made, created or acquired at or by the Laboratory; negotiating licensing agreements and assignments for Intellectual Property made, created or acquired at or by the Laboratory that the Contractor controls or owns; bailments; negotiating all aspects of and entering into CRADAs; providing technical consulting and personnel exchanges; conducting science education activities and reimbursable Strategic Partnership Projects (SPP); providing information exchanges; and making available laboratory or weapon production user facilities. It is fully expected that the Contractor shall use all of the mechanisms available to it to accomplish this technology transfer mission, including, but not limited to, CRADAs, user facilities, SPP, science education activities, consulting, personnel exchanges, assignments, and licensing in accordance with this clause.

(b) *Definitions.* (1) Contractor's Laboratory Director means the individual who has supervision over all or substantially all of the Contractor's operations at the Laboratory.

(2) Intellectual Property means patents, trademarks, copyrights, mask works, protected CRADA information, and other forms of comparable property rights protected by Federal Law and other foreign counterparts.

(3) Cooperative Research and Development Agreement (CRADA) means any agreement entered into between the Contractor as operator of the Laboratory, and one or more parties including at least one non-Federal party under which the Government,

through its laboratory, provides personnel, services, facilities, equipment, intellectual property, or other resources with or without reimbursement (but not funds to non-Federal parties) and the non-Federal parties provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified research or development efforts which are consistent with the missions of the Laboratory; except that such term does not include a procurement contract, grant, or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of Title 31 of the United States Code.

(4) Joint Work Statement (JWS) means a proposal for a CRADA prepared by the Contractor, signed by the Contractor's Laboratory Director or designee which describes the following:

(i) Purpose;

(ii) Scope of Work which delineates the rights and responsibilities of the Government, the Contractor and Third Parties, one of which must be a non-Federal party;

(iii) Schedule for the work; and

(iv) Cost and resource contributions of the parties associated with the work and the schedule.

(5) Assignment means any agreement by which the Contractor transfers ownership of Laboratory Intellectual Property, subject to the Government's retained rights.

(6) Laboratory Biological Materials means biological materials capable of replication or reproduction, such as plasmids, deoxyribonucleic acid molecules, ribonucleic acid molecules, living organisms of any sort and their progeny, including viruses, prokaryote and eukaryote cell lines, transgenic plants and animals, and any derivatives or modifications thereof or products produced through their use or associated biological products, made under this contract by Laboratory employees or through the use of Laboratory research facilities.
(7) Laboratory Tangible Research Product means tangible material results of research which

(i) are provided to permit replication, reproduction, evaluation or confirmation of the research effort, or to evaluate its potential commercial utility;

(ii) are not materials generally commercially available; and

(iii) were made under this contract by Laboratory employees or through the use of Laboratory research facilities.

(8) Bailment means any agreement in which the Contractor permits the commercial or non-commercial transfer of custody, access or use of Laboratory Biological Materials or Laboratory Tangible Research Product for a specified purpose of technology transfer or research and development, including without limitation evaluation, and without transferring ownership to the bailee.

(c) *Allowable Costs.* (1) The Contractor shall establish and carry out its technology transfer efforts through appropriate organizational elements consistent with the requirements for an Office of Research and Technology Applications (ORTA) pursuant to paragraphs (b) and (c) of Section 11 of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710). The costs associated with the conduct of technology transfer through the ORTA including activities associated with obtaining, maintaining, licensing, and assigning Intellectual Property rights, increasing the potential for the transfer of technology, and the widespread notice of technology transfer opportunities, shall be deemed allowable provided that such costs meet the other requirements of the allowable costs provisions of this Contract. In addition to any separately designated funds, these costs in any fiscal year shall not exceed an amount equal to 0.5 percent of the operating funds included in the Federal research and development budget (including Strategic Partnership Projects) of the Laboratory for that fiscal year without written approval of the contracting officer.

(2) The Contractor's participation in litigation to enforce or defend Intellectual Property claims incurred in its technology transfer efforts shall be as provided in the clause entitled "Insurance -- Litigation and Claims" of this contract.

(d) *Conflicts of Interest -- Technology Transfer.* The Contractor shall have implementing procedures that seek to avoid employee and organizational conflicts of interest, or the appearance of conflicts of interest, in the conduct of its technology transfer activities. These procedures shall apply to other persons participating in Laboratory research or related technology transfer activities. Such implementing procedures shall be provided to the contracting officer for review and approval within sixty (60) days after execution of this contract. The contracting officer shall have thirty (30) days thereafter to approve or require specific changes to such procedures. Such implementing procedures shall include procedures to:

(1) Inform employees of and require conformance with standards of conduct and integrity in connection with research involving nonfederal sponsors and for CRADA activity in accordance with the provisions of paragraph (n)(5) of this clause;

(2) Review and approve employee activities so as to avoid conflicts of interest arising from commercial utilization activities relating to Contractor-developed Intellectual Property;

(3) Conduct work performed using royalties so as to avoid interference with or adverse effects on ongoing DOE projects and programs;

(4) Conduct activities relating to commercial utilization of Contractor-developed Intellectual Property so as to avoid interference with or adverse effects on user facility or SPP activities of the Contractor;

(5) Conduct DOE-funded projects and programs so as to avoid the appearance of conflicts of interest or actual conflicts of interest with non-Government funded work;

(6) Notify the contracting officer with respect to any new work to be performed or proposed to be performed under the Contract for DOE or other Federal agencies where the new work or proposal involves Intellectual Property in which the Contractor has obtained or intends to request or elect title;

(7) Except as provided elsewhere in this Contract, obtain the approval of the contracting officer for any licensing of or assignment of title to Intellectual Property rights by the Contractor to any business or corporate affiliate of the Contractor;

(8) Obtain the approval of the contracting officer prior to any assignment, exclusive licensing, or option for exclusive licensing, of Intellectual Property to any individual who has been a Laboratory employee within the previous two years or to the company in which the individual is a principal;

(9) Notify non-Federal sponsors of SPP activities, or non-Federal users of user facilities, of any relevant Intellectual Property interest of the Contractor prior to execution of SPPs or user agreements; and

(10) Notify DOE prior to the Contractor's evaluating a technical proposal for funding by a third party or a DOE Program, when the subject matter of the proposal involves an elected or waived subject invention under this contract or one in which the Contractor intends to elect to retain title under this contract.

(e) *Fairness of Opportunity.* In conducting its technology transfer activities, the Contractor shall prepare procedures and take all reasonable measures to ensure widespread notice of availability of technologies suited for transfer and opportunities for exclusive licensing and joint research arrangements. The requirement to widely disseminate the availability of technology transfer opportunities does not apply to a

specific application originated outside of the Laboratory and by entities other than the Contractor.

(f) *U.S. Industrial Competitiveness for Licensing and Assignments of Intellectual Property.* (1) In the interest of enhancing U.S. Industrial Competitiveness in its licensing and assignments of Intellectual Property, the Contractor shall give preference in such a manner as to enhance the accrual of economic and technological benefits to the U.S. domestic economy. The Contractor shall consider the following factors in all of its decisions involving licensing and assignment of Laboratory intellectual property where the Laboratory obtains rights during the course of the Contractor's operation of the Laboratory under this contract:

(i) whether any resulting design and development will be performed in the United States and whether resulting products, embodying parts, including components thereof, will be substantially manufactured in the United States; or

(ii) (A) whether a proposed licensee or an assignee has a business unit located in the United States and whether significant economic and technical benefits will flow to the United States as a result of the license or assignment agreement;

(B) in licensing or assigning any entity subject to the control of a foreign company or government, whether such foreign government permits United States agencies, organizations or other persons to enter into cooperative research and development agreements and licensing agreements, and has policies to protect United States Intellectual Property rights; and

(C) if the proposed licensee, assignee, or parent of either type of entity is subject to the control of a foreign company or government, the Contractor, with the assistance of the Contracting Officer, in considering the factors set forth in paragraph (B) herein, may rely upon the following information; (1) U.S. Trade Representative Inventory of Foreign Trade Barriers, (2) U.S. Trade Representative Special 301 Report, and, (3) such other relevant information available to the contracting officer. The Contractor should review the U.S. Trade Representative web site at: <http://www.ustr.gov> for the most current versions of these reports and other relevant information. The Contractor is encouraged to utilize other available resources, as necessary, to allow for a complete and informed decision.

(2) If the Contractor determines that neither of the conditions in paragraphs (f)(1)(i) or (ii) of this clause is likely to be fulfilled, the Contractor, prior to entering into such an agreement, must obtain the approval of the contracting officer. The contracting officer shall act on any such requests for approval within thirty (30) days.

(3) The Contractor agrees to be bound by the provisions of 35 U.S.C. 204 (Preference for United States industry).

(g) *Indemnity -- Product Liability.* In entering into written technology transfer agreements, including but not limited to, research and development agreements, licenses, assignments and CRADAs, the Contractor agrees to include in such agreements a requirement that the U.S. Government and the Contractor, except for any negligent acts or missions of the Contractor, be indemnified for all damages, costs, and expenses, including attorneys' fees, arising from personal injury or property damage occurring as a result of the making, using or selling of a product, process or service by or on behalf of the Participant, its assignees or licensees which was derived from the work performed under the agreement. The Contractor shall identify and obtain the approval of the contracting officer for any proposed exceptions to this requirement such as where State or local law expressly prohibit the Participant from providing indemnification or where the research results will be placed in the public domain.

(h) *Disposition of Income.* (1) Royalties or other income earned or retained by the Contractor as a result of performance of authorized technology transfer activities herein shall be used by the Contractor for scientific research, development, technology transfer, and education at the Laboratory, consistent with the research and development mission and objectives of the Laboratory and subject to Section 12(b)(5) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a(b)(5)) and Chapter 38 of the Patent Laws (35 U.S.C. 200 et seq.) as amended through the effective date of this contract award or modification. If the net amounts of such royalties and income received from patent licensing after payment of patenting costs, licensing costs, payments to inventors and other expenses incidental to the administration of Subject Inventions during any fiscal year exceed 5 percent of the Laboratory's budget for that fiscal year, 75 percent of such excess amounts shall be paid to the Treasury of the United States, and the remaining amount of such excess shall be used by the Contractor for the purposes as described above in this paragraph. Any inventions arising out of such scientific research and development activities shall be deemed to be Subject Inventions under the Contract.

(2) The Contractor shall include as a part of its annual Laboratory Institutional Plan or other such annual document a plan setting out those uses to which royalties and other income received as a result of performance of authorized technology transfer activities herein will be applied at the Laboratory, and at the end of the year, provide a separate accounting for how the funds were actually used. Under no circumstances shall these royalties and income be used for an illegal augmentation of funds furnished by the U.S. Government.

(3) The Contractor shall establish subject to the approval of the contracting officer a policy for making awards or sharing of royalties with Contractor employees, other

coinventors and coauthors, including Federal employee coinventors when deemed appropriate by the contracting officer.

(i) *Transfer to Successor Contractor.* In the event of termination or upon the expiration of this Contract, any unexpended balance of income received for use at the Laboratory shall be transferred, at the contracting officer's request, to a successor contractor, or in the absence of a successor contractor, to such other entity as designated by the contracting officer. The Contractor shall transfer title, as one package, to the extent the Contractor retains title, in all patents and patent applications, licenses, accounts containing royalty revenues from such license agreements, including equity positions in third party entities, and other Intellectual Property rights which arose at the Laboratory, to the successor contractor or to the Government as directed by the contracting officer.

(j) *Technology Transfer Affecting the National Security.* (1) The Contractor shall notify and obtain the approval of the contracting officer, prior to entering into any technology transfer arrangement, when such technology or any part of such technology is classified or sensitive under Section 148 of the Atomic Energy Act (42 U.S.C. 2168). Such notification shall include sufficient information to enable DOE to determine the extent that commercialization of such technology would enhance or diminish security interests of the United States, or diminish communications within DOE's nuclear weapon production complex. DOE shall use its best efforts to complete its determination within sixty (60) days of the Contractor's notification, and provision of any supporting information and DOE shall promptly notify the Contractor as to whether the technology is transferable.

(2) The Contractor shall include in all of its technology transfer agreements with third parties, including, but not limited to, CRADAs, licensing agreements and assignments, notice to such third parties that the export of goods and/or Technical Data from the United States may require some form of export control license or other authority from the U.S. Government and that failure to obtain such export control license may result in criminal liability under U.S. laws.

(3) For other than fundamental research as defined in National Security Decision Directive 189, the Contractor is responsible to conduct internal export control reviews and assure that technology is transferred in accordance with applicable law.

(k) *Records.* The Contractor shall maintain records of its technology transfer activities in a manner and to the extent satisfactory to the DOE and specifically including, but not limited to, the licensing agreements, assignments and the records required to implement the requirements of paragraphs (e), (f), and (h) of this clause and shall provide reports to the contracting officer to enable DOE to maintain the reporting requirements of Section 12(c)(6) of the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15

U.S.C. 3710a(c)(6)). Such reports shall be made annually in a format to be agreed upon between the Contractor and DOE and in such a format which will serve to adequately inform DOE of the Contractor's technology transfer activities while protecting any data not subject to disclosure under the Rights in Technical Data clause and paragraph (n) of this clause. Such records shall be made available in accordance with the clauses of this Contract pertaining to inspection, audit and examination of records.

(l) *Reports to Congress.* To facilitate DOE's reporting to Congress, the Contractor is required to submit annually to DOE a technology transfer plan for conducting its technology transfer function for the upcoming year, including plans for securing Intellectual Property rights in Laboratory innovations with commercial promise and plans for managing such innovations so as to benefit the competitiveness of United States industry. This plan shall be provided to the contracting officer on or before October 1st of each year.

(m) *Oversight and Appraisal.* The Contractor is responsible for developing and implementing effective internal controls for all technology transfer activities consistent with the audit and record requirements of this Contract. Laboratory Contractor performance in implementing the technology transfer mission and the effectiveness of the Contractor's procedures will be evaluated by the contracting officer as part of the annual appraisal process, with input from the cognizant Secretarial Officer or program office.

(n) *Technology Transfer through Cooperative Research and Development Agreements.* Upon approval of the contracting officer and as provided in a DOE approved Joint Work Statement (JWS), the Laboratory Director, or designee, may enter into CRADAs on behalf of the DOE subject to the requirements set forth in this paragraph.

(1) *Review and Approval of CRADAs.* (i) Except as otherwise directed in writing by the contracting officer, each JWS shall be submitted to the contracting officer for approval. The Contractor's Laboratory Director or designee shall provide a program mission impact statement and shall include an impact statement regarding related Intellectual Property rights known by the Contractor to be owned by the Government to assist the contracting officer in the approval determination.

(ii) The Contractor shall also include (specific to the proposed CRADA), a statement of compliance with the Fairness of Opportunity requirements of paragraph (e) of this clause.

(iii) Within thirty (30) days after submission of a JWS or proposed CRADA, the contracting officer shall approve, disapprove or request modification to the JWS or CRADA. The contracting officer shall provide a written explanation to the Contractor's Laboratory Director or designee of any disapproval or requirement for modification of a JWS or proposed CRADA.

(iv) Except as otherwise directed in writing by the contracting officer, the Contractor shall not enter into, or begin work under, a CRADA until approval of the CRADA has been granted by the contracting officer. The Contractor may submit its proposed CRADA to the contracting officer at the time of submitting its proposed JWS or any time thereafter.

(2) *Selection of Participants.* The Contractor's Laboratory Director or designee in deciding what CRADA to enter into shall:

(i) Give special consideration to small business firms, and consortia involving small business firms;

(ii) Give preference to business units located in the United States which agree that products or processes embodying Intellectual Property will be substantially manufactured or practiced in the United States and, in the case of any industrial organization or other person subject to the control of a foreign company or government, take into consideration whether or not such foreign government permits United States agencies, organizations, or other persons to enter into cooperative research and development agreements and licensing agreements;

(iii) Provide Fairness of Opportunity in accordance with the requirements of paragraph (e) of this clause; and

(iv) Give consideration to the Conflicts of Interest requirements of paragraph (d) of this clause.

(3) *Withholding of Data.* (i) Data that is first produced as a result of research and development activities conducted under a CRADA and that would be a trade secret or commercial or financial data that would be privileged or confidential, if such data had been obtained from a non-Federal third party, may be protected from disclosure under the Freedom of Information Act as provided in the Stevenson-Wydler Technology Innovation Act of 1980, as amended (15 U.S.C. 3710a(c)(7)) for a period as agreed in the CRADA of up to five (5) years from the time the data is first produced. The DOE shall cooperate with the Contractor in protecting such data.

(ii) Unless otherwise expressly approved by the contracting officer in advance for a specific CRADA, the Contractor agrees, at the request of the contracting officer, to transmit such data to other DOE facilities for use by DOE or its Contractors by or on behalf of the Government. When data protected pursuant to paragraph (n)(3)(i) of this clause is so transferred, the Contractor shall clearly mark the data with a legend setting out the restrictions against private use and further dissemination, along with the expiration date of such restrictions.

(iii) In addition to its authority to license Intellectual Property, the Contractor may enter into licensing agreements with third parties for data developed by the Contractor under a CRADA subject to other provisions of this Contract. However, the Contractor shall neither use the protection against dissemination nor the licensing of data as an alternative to the submittal of invention disclosures which include data protected pursuant to paragraph (n)(3)(i) of this clause.

(4) *Strategic Partnership Projects and User Facility Programs.* (i) SPP and User Facility Agreements (UFAs) are not CRADAs and will be available for use by the Contractor in addition to CRADAs for achieving utilization of employee expertise and unique facilities for maximizing technology transfer. The Contractor agrees to inform prospective CRADA participants, which are intending to substantially pay full cost recovery for the effort under a proposed CRADA, of the availability of alternative forms of agreements, i.e., SPP and UFA, and of the Class Patent Waiver provisions associated therewith.

(ii) Where the Contractor believes that the transfer of technology to the U.S. domestic economy will benefit from, or other equity considerations dictate, an arrangement other than the Class Waiver of patent rights to the sponsor in SPP and UFAs, a request may be made to the contracting officer for an exception to the Class Waivers.

(iii) Rights to inventions made under agreements other than funding agreements with third parties shall be governed by the appropriate provisions incorporated, with DOE approval, in such agreements, and the provisions in such agreements take precedence over any disposition of rights contained in this Contract. Disposition of rights under any such agreement shall be in accordance with any DOE class waiver (including Strategic Partnership Projects and User Class Waivers) or individually negotiated waiver which applies to the agreement.

(5) *Conflicts of Interest.* (i) Except as provided in paragraph (n)(5)(iii) of this clause, the Contractor shall assure that no employee of the Contractor shall have a substantial role (including an advisory role) in the preparation, negotiation, or approval of a CRADA, if, to such employee's knowledge:

(A) Such employee, or the spouse, child, parent, sibling, or partner of such employee, or an organization (other than the Contractor) in which such employee serves as an officer, director, trustee, partner, or employee --

(1) holds financial interest in any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA;

(2) receives a gift or gratuity from any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA; or

(B) A financial interest in any entity, other than the Contractor, that has a substantial interest in the preparation, negotiation, or approval of the CRADA, is held by any person or organization with whom such employee is negotiating or has any arrangement concerning prospective employment.

(ii) The Contractor shall require that each employee of the Contractor who has a substantial role (including an advisory role) in the preparation, negotiation, or approval of CRADA certify through the Contractor to the contracting officer that the circumstances described in paragraph (n)(5)(i) of this clause do not apply to that employee.

(iii) The requirements of paragraphs (n)(5)(i) and (n)(5)(ii) of this clause shall not apply in a case where the contracting officer is advised by the Contractor in advance of the participation of an employee described in those paragraphs in the preparation, negotiation or approval of a CRADA of the nature of and extent of any financial interest described in paragraph (n)(5)(i) of this clause, and the contracting officer determines that such financial interest is not so substantial as to be considered likely to affect the integrity of the Contractor employee's participation in the process of preparing, negotiating, or approving the CRADA.

(o) *Technology Transfer in Other Cost-Sharing Agreements.* In conducting research and development activities in cost-shared agreements not covered by paragraph (n) of this clause, the Contractor, with prior written permission of the contracting officer, may provide for the withholding of data produced thereunder in accordance with the applicable provisions of paragraph (n)(3) of this clause.

(p) *Technology Partnership Ombudsman.* (1) The Contractor agrees to establish a position to be known as "Technology Partnership Ombudsman," to help resolve complaints from outside organizations regarding the policies and actions of the contractor with respect to technology partnerships (including CRADAs), patents owned by the contractor for inventions made at the laboratory, and technology licensing.

(2) The Ombudsman shall be a senior official of the Contactor's laboratory staff, who is not involved in day-to-day technology partnerships, patents or technology licensing, or, if appointed from outside the laboratory or facility, shall function as such senior official.

(3) The duties of the Technology Partnership Ombudsman shall include:

(i) Serving as the focal point for assisting the public and industry in resolving complaints and disputes with the laboratory or facility regarding technology partnerships, patents, and technology licensing;

(ii) Promoting the use of collaborative alternative dispute resolution techniques such as mediation to facilitate the speedy and low cost resolution of complaints and disputes, when appropriate; and

(iii) Submitting a quarterly report, in a format provided by DOE, to the Secretary of Energy, the Administrator for Nuclear Security, the Director of the DOE Office of Dispute Resolution, and the Contracting Officer concerning the number and nature of complaints and disputes raised, along with the Ombudsman's assessment of their resolution, consistent with the protection of confidential and sensitive information.

(End of clause)

CLAUSE I.106 - DEAR 970.5227-4 AUTHORIZATION AND CONSENT (AUG 2002)

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.

(b) If the Contractor is sued for copyright infringement or anticipates the filing of such a lawsuit, the Contractor may request authorization and consent to copy a copyrighted work from the contracting officer. Programmatic necessity is a major consideration for DOE in determining whether to grant such request.

(c) (1) The Contractor agrees to include, and require inclusion of, the Authorization and Consent clause at 52.227-1, without Alternate 1, but suitably modified to identify the parties, in all subcontracts expected to exceed $100,000 at any tier for supplies or services, including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services.

(2) The Contractor agrees to include, and require inclusion of, paragraph (a) of this Authorization and Consent clause, suitably modified to identify the parties, in all subcontracts at any tier for research and development activities expected to exceed $100,000.

(3) Omission of an authorization and consent clause from any subcontract, including those valued less than $100,000 does not affect this authorization and consent.

CLAUSE I.107 - DEAR 970.5227-5 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 2002)

(a) The Contractor shall report to the Contracting Officer promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) If any person files a claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Except where the Contractor has agreed to indemnify the Government, the Contractor shall furnish such evidence and information at the expense of the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause suitably modified to identify the parties, in all subcontracts at any tier expected to exceed $100,000.

CLAUSE I.108 - DEAR 970.5227-6 PATENT INDEMNITY - SUBCONTRACTS (DEC 2000)

Except as otherwise authorized by the Contracting Officer, the Contractor shall obtain indemnification of the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a secrecy order by the Government) from Contractor's subcontractors for any contract work subcontracted in accordance with FAR 48 CFR 52.227-3.

CLAUSE I.109 - DEAR 970.5227-8 REFUND OF ROYALTIES (AUG 2002)

(a) During performance of this Contract, if any royalties are proposed to be charged to the Government as costs under this Contract, the Contractor agrees to submit for approval of the Contracting Officer, prior to the execution of any license, the following information relating to each separate item of royalty:

(1) Name and address of licensor;

(2) Patent numbers, patent application serial numbers, or other basis on which the royalty is payable;

(3) Brief description, including any part or model numbers of each contract item or component on which the royalty is payable;

(4) Percentage or dollar rate of royalty per unit;

(5) Unit price of contract item;

(6) Number of units;

(7) Total dollar amount of royalties; and

(8) A copy of the proposed license agreement.

(b) If specifically requested by the Contracting Officer, the Contractor shall furnish a copy of any license agreement entered into prior to the effective date of this clause and an identification of applicable claims of specific patents or other basis upon which royalties are payable.

(c) The term "royalties" as used in this clause refers to any costs or charges in the nature of royalties, license fees, patent or license amortization costs, or the like, for the use of or for rights in patents and patent applications that are used in the performance of this contract or any subcontract hereunder.

(d) The Contractor shall furnish to the Contracting Officer, annually upon request, a statement of royalties paid or required to be paid in connection with performing this Contract and subcontracts hereunder.

(e) For royalty payments under licenses entered into after the effective date of this Contract, costs incurred for royalties proposed under this paragraph shall be allowable only to the extent that such royalties are approved by the Contracting Officer. If the Contracting Officer determines that existing or proposed royalty payments are inappropriate, any payments subsequent to such determination shall be allowable only to the extent approved by the Contracting Officer.

(f) Regardless of prior DOE approval of any individual payments or royalties, DOE may contest at any time the enforceability, validity, scope of, or title to a patent for which Contractor makes a royalty or other payment.

(g) If at any time within 3 years after final payment under this contract, the Contractor for any reason is relieved in whole or in part from the payment of any royalties to which this clause applies, the Contractor shall promptly notify the Contracting

Officer of that fact and shall promptly reimburse the Government for any refunds received or royalties paid after having received notice of such relief.

(h) The Contractor agrees to include, and require inclusion of, this clause, including this paragraph (h), suitably modified to identify the parties in any subcontract at any tier in which the amount of royalties reported during negotiation of the subcontract exceeds $250.

CLAUSE I.110 - DEAR 970.5227-10 PATENT RIGHTS - MANAGEMENT AND OPERATING CONTRACTS, NONPROFIT ORGANIZATION OR SMALL BUSINESS FIRM CONTRACTOR (AUG 2002)

(a) DEFINITIONS.

(1) *DOE licensing regulations* means the Department of Energy patent licensing regulations at 10 CFR Part 781.

(2) *Exceptional circumstance subject invention* means any subject invention in a technical field or related to a task determined by the Department of Energy to be subject to an exceptional circumstance under 35 U.S.C. 202(a)(ii) and in accordance with 37 CFR Part 401.3(e).

(3) *Invention* means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 *et seq*.).

(4) *Made* when used in relation to any invention means the conception or first actual reduction to practice of such invention.

(5) *Nonprofit organization* means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.

(6) *Patent Counsel* means the Department of Energy (DOE) Patent Counsel assisting the DOE contracting activity.

(7) *Practical application* means to manufacture, in the case of a composition or product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

(8) *Small business firm* means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration.

For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, are used.

(9) *Subject Invention* means any invention of the contractor conceived or first actually reduced to practice in the performance of work under this contract, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d)) shall also occur during the period of contract performance.

(b) ALLOCATION OF PRINCIPAL RIGHTS.

(1) *Retention of title by the Contractor*. Except for exceptional circumstance subject inventions, the contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 U.S.C. 203. With respect to any subject invention in which the Contractor retains title, the Federal government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(2) *Exceptional circumstance subject inventions.* Except to the extent that rights are retained by the Contractor in a determination of exceptional circumstances or granted to a contractor through a determination of greater rights in accordance with subparagraph (b)(4) of this clause, the Contractor does not have a right to retain title to any exceptional circumstance subject inventions and agrees to assign to the Government the entire right, title, and interest, throughout the world, in and to any exceptional circumstance subject inventions.

(i) Inventions within or relating to the following fields of technology are exceptional circumstance subject inventions:

(A) uranium enrichment technology;

(B) storage and disposal of civilian high-level nuclear waste and spent fuel technology; and

(C) national security technologies classified or sensitive under Section 148 of the Atomic Energy Act (42 U.S.C. 2168).

(ii) Inventions made under any agreement, contract or subcontract related to the following are exceptional circumstance subject inventions:

(A) DOE Steel Initiative and Metals Initiative;

(B) U.S. Advanced Battery Consortium; and

(C) any funding agreement which is funded in part by the Electric Power Research Institute (EPRI) or the Gas Research Institute (GRI).

(iii) DOE reserves the right to unilaterally amend this contract to modify, by deletion or insertion, technical fields, tasks, or other classifications for the purpose of determining DOE exceptional circumstance subject inventions.

(3) *Treaties and international agreements.* Any rights acquired by the Contractor in subject inventions are subject to any disposition of right, title, or interest in or to subject inventions provided for in treaties or international agreements identified at Appendix J to this contract. DOE reserves the right to unilaterally amend this contract to identify specific treaties or international agreements entered into or to be entered into by the Government after the effective date of this contract and to effectuate those license or other rights which are necessary for the Government to meet its obligations to foreign governments, their nationals and international organizations under such treaties or international agreements with respect to subject inventions made after the date of the amendment.

(4) *Contractor request for greater rights in exceptional circumstance subject inventions.* The Contractor may request rights greater than allowed by the exceptional circumstance determination in an exceptional circumstance subject invention by submitting such a request in writing to Patent Counsel at the time the exceptional circumstance subject invention is disclosed to DOE or within eight (8) months after conception or first actual reduction to practice of the exceptional circumstance subject invention, whichever occurs first, unless a longer period is authorized in writing by the Patent Counsel for good cause shown in writing by the Contractor. DOE may, in its discretion, grant or refuse to grant such a request by the Contractor.

(5) *Contractor employee-inventor rights*. If the Contractor does not elect to retain title to a subject invention or does not request greater rights in an exceptional circumstance subject invention, a Contractor employee-inventor, after consultation with the Contractor and with written authorization from the Contractor in accordance with 10 CFR 784.9(b)(4), may request greater rights, including title, in the subject invention or the exceptional circumstance invention from DOE, and DOE may, in its discretion, grant or refuse to grant such a request by the Contractor employee-inventor.

(6) *Government assignment of rights in Government employees' subject inventions.* If a Government employee is a joint inventor of a subject invention or of an exceptional circumstance subject invention to which the Contractor has rights, the Government may assign or refuse to assign to the Contractor any rights in the subject invention or exceptional circumstance subject invention acquired by the Government from the Government employee, in accordance with 48 CFR 27.304-1(d). The rights assigned to the Contractor are subject to any provision of this clause that is applicable to subject inventions in which the Contractor retains title, including reservation by the Government of a nonexclusive, nontransferable, irrevocable, paid-up license, except that the Contractor shall file its initial patent application claiming the subject invention or exceptional circumstance invention within one (1) year after the assignment of such rights. The Contractor shall share royalties collected for the manufacture, use or sale of the subject invention with the Government employee.

(c) <u>SUBJECT INVENTION DISCLOSURE, ELECTION OF TITLE AND FILING OF PATENT APPLICATION BY CONTRACTOR</u>.

(1) *Subject invention disclosure*. The contractor will disclose each subject invention to the Patent Counsel within two months after the inventor discloses it in writing to contractor personnel responsible for patent matters. The disclosure to the agency shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s) and all sources of funding by B&R code for the invention. It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. The disclosure shall include a written statement as to whether the invention falls within an exceptional circumstance field. DOE will make a determination and advise the

Contractor within 30 days of receipt of an invention disclosure as to whether the invention is an exceptional circumstance subject invention.

In addition, after disclosure to the Patent Counsel, the Contractor will promptly notify the agency of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the contractor. The Contractor shall obtain approval from Patent Counsel prior to any release or publication of information concerning any nonelectable subject invention such as an exceptional circumstance subject invention or any subject invention related to a treaty or international agreement.

(2) *Election by the Contractor*. Except as provided in paragraph (b)(2) of this clause, the Contractor will elect in writing whether or not to retain title to any such invention by notifying the Federal agency within two years of disclosure to the Federal agency. However, in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.

(3) *Filing of patent applications by the Contractor*. The Contractor will file its initial patent application on a subject invention to which it elects to retain title within one year after election of title or, if earlier, or prior to the end of any 1-year statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The Contractor will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) *Contractor's request for an extension of time*. Requests for an extension of the time for disclosure, election, and filing under subparagraphs (c)(1), (2) and (3) may, at the discretion of Patent Counsel, be granted.

(5) *Publication Approval*. During the course of the work under this contract, the Contractor or its employees may desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interest of DOE or the Contractor, approval for release or publication shall be secured from the Contractor personnel responsible for patent matters prior to any such release or publication.

Where DOE's approval of publication is requested, DOE's response to such requests for approval shall normally be provided within 90 days except in circumstances in which a domestic patent application must be filed in order to protect foreign rights. In the case involving foreign patent rights, DOE shall be granted an additional 180 days with which to respond to the request for approval, unless extended by mutual agreement.

(d) CONDITIONS WHEN THE GOVERNMENT MAY OBTAIN TITLE.

The Contractor will convey to the DOE, upon written request, title to any subject invention --

(1) If the Contractor fails to disclose or elect title to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain title; provided, that DOE may only request title within sixty (60) days after learning of the failure of the Contractor to disclose or to elect within the specified times.

(2) In those countries in which the Contractor fails to file a patent application within the times specified in subparagraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in subparagraph (c) above, but prior to its receipt of the written request of the DOE, the Contractor shall continue to retain title in that country.

(3) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

(4) If the Contractor requests that DOE acquire title or rights from the Contractor in a subject invention to which the Contractor had initially retained title or rights, or in an exceptional circumstance subject invention to which the Contractor was granted greater rights, DOE may acquire such title or rights from the Contractor, or DOE may decide against acquiring such title or rights from the Contractor, at DOE's sole discretion.

(e) MINIMUM RIGHTS OF THE CONTRACTOR AND PROTECTION OF THE CONTRACTOR'S RIGHT TO FILE.

(1) *Request for a Contractor license*. The Contractor may request the right to reserve a revocable, nonexclusive, royalty-free license throughout the world

in each subject invention to which the Government obtains title, except if the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. DOE may grant or refuse to grant such a request by the Contractor. When DOE approves such reservation, the Contractor's license will normally extend to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a party and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the contractor's business to which the invention pertains.

(2) *Revocation or modification of a Contractor license*. The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404 and DOE licensing regulations at 10 CFR Part 781. This license will not be revoked in the field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the subject invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application of the subject invention in that foreign country.

(3) *Notice of revocation of modification of a Contractor license*. Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and DOE licensing regulations at 10 CFR part 781 concerning the licensing of Government owned inventions, any decision concerning the revocation or modification of the license.

(f) <u>CONTRACTOR ACTION TO PROTECT THE GOVERNMENT'S INTEREST</u>.

(1) *Execution of delivery of title or license instruments*. The Contractor agrees to execute or to have executed, and promptly deliver to the Patent Counsel all instruments necessary to accomplish the following actions:

(i) establish or confirm the rights the Government has throughout the world in those subject inventions to which the Contractor elects to retain title, and

(ii) convey title to DOE when requested under subparagraphs (b) or paragraph (d) of this clause and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) *Contractor employee agreements*. The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to Contractor personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor, each subject invention made under this contract in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the information required by subparagraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) *Notification of discontinuation of patent protection*. The contractor will notify the Patent Counsel of any decision not to continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) *Notification of Government rights*. The contractor agrees to include, within the specification of any United States patent applications and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with government support under (identify the contract) awarded by (identify the Federal agency). The government has certain rights in the invention."

(5) *Invention Identification Procedures*. The Contractor shall establish and maintain active and effective procedures to ensure that subject inventions are promptly identified and timely disclosed and shall submit a written description of such procedures to the Contracting Officer so that the Contracting Officer may evaluate and determine their effectiveness.

(6) *Invention Filing Documentation*. If the Contractor files a domestic or foreign patent application claiming a subject invention, the Contractor shall promptly submit to Patent Counsel, upon request, the following information and documents:

(i) the filing date, serial number, title, and a copy of the patent application (including an English-language version if filed in a language other than English);

(ii) an executed and approved instrument fully confirmatory of all Government rights in the subject invention; and

(iii) the patent number, issue date, and a copy of any issued patent claiming the subject invention.

(7) *Duplication and disclosure of documents*. The Government may duplicate and disclose subject invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this clause; provided, however, that any such duplication or disclosure by the Government is subject to the confidentiality provision at 35 U.S.C. 205 and 37 CFR Part 40.

(g) SUBCONTRACTS.

(1) *Subcontractor subject inventions.* The Contractor shall not obtain rights in the subcontractor's subject inventions as part of the consideration for awarding a subcontract.

(2) *Inclusion of patent rights clause - non-profit organization or small business firm subcontractors.* Unless otherwise authorized or directed by the Contracting Officer, the Contractor shall include the patent rights clause at 48 CFR 952.227-11, suitably modified to identify the parties, in all subcontracts, at any tier, for experimental, developmental, demonstration or research work to be performed by a small business firm or domestic nonprofit organization, except subcontracts which are subject to exceptional circumstances in accordance with 35 U.S.C. 202 and subparagraph (b)(2) of this clause. The subcontractor retains all rights provided for the contractor in the patent rights clause at 48 CFR 952.227-11.

(3) *Inclusion of patent rights clause - subcontractors other than non-profit organizations and small business firms.* Except for the subcontracts described in subparagraph (g)(2) of this clause, the Contractor shall include the patent rights clause at 48 CFR 952.227-13, suitably modified to identify the parties, in any contract for experimental, developmental, demonstration

or research work. For subcontracts subject to exceptional circumstances, the contractor must consult with DOE patent counsel with respect to the appropriate patent clause.

(4) *DOE and subcontractor contract.* With respect to subcontracts at any tier, DOE, the subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and DOE with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (j) of this clause.

(5) *Subcontractor refusal to accept terms of patent clause.* If a prospective subcontractor refuses to accept the terms of a patent rights clause, the Contractor shall promptly submit a written notice to the Contracting Officer stating the subcontractor's reasons for such a refusal, including any relevant information for expediting disposition of the matter, and the Contractor shall not proceed with the subcontract without the written authorization of the Contracting Officer.

(6) *Notification of award of subcontract*. Upon the award of any subcontract at any tier containing a patent rights clause, the Contractor shall promptly notify the Contracting Officer in writing and identify the subcontractor, the applicable patent rights clause, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon request of the Contracting Officer, the Contractor shall furnish a copy of a subcontract.

(7) *Identification of subcontractor subject inventions.* If the Contractor in the performance of this contract becomes aware of a subject invention made under a subcontract, the Contractor shall promptly notify Patent Counsel and identify the subject invention.

(h) <u>REPORTING ON UTILIZATION OF SUBJECT INVENTIONS</u>.

The Contractor agrees to submit to DOE on request, periodic reports, no more frequently than annually, on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in

accordance with paragraph (j) of this clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without permission of the Contractor.

(i) PREFERENCE FOR UNITED STATES INDUSTRY.

Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any product embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) MARCH-IN RIGHTS.

The Contractor agrees that, with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in 37 CFR 401.6 and any DOE supplemental regulations to require the Contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and, if the Contractor, assignee or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that --

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived, or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) SPECIAL PROVISIONS FOR CONTRACTS WITH NONPROFIT ORGANIZATIONS.

If the Contractor is a nonprofit organization, it agrees that --

(1) *DOE approval of assignment of rights*. Rights to a subject invention in the United States may not be assigned by the Contractor without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions; provided, that such assignee will be subject to the same provisions of this clause as the Contractor.

(2) *Small business firm licensees*. It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms, and that it will give a preference to a small business firm when licensing a subject invention if the Contractor determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided, that the Contractor is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor. However, the Contractor agrees that the Secretary of Commerce may review the Contractor's licensing program and decisions regarding small business firm applicants, and the Contractor will negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when that Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of this subparagraph (k)(2).

(3) *Contractor licensing of subject inventions.* To the extent that it provides the most effective technology transfer, licensing of subject inventions shall be administered by Contractor employees on location at the facility.

(l) COMMUNICATIONS.

The Contractor shall direct any notification, disclosure or request provided for in this clause to the Patent Counsel assisting the DOE contracting activity.

(m) REPORTS.

(1) *Interim reports.* Upon DOE's request, the Contractor shall submit to DOE, no more frequently than annually, a list of subject inventions disclosed to DOE during a specified period, or a statement that no subject inventions were made during the specified period; and a list of subcontracts containing a patent clause and awarded by the Contractor during a specified period, or a statement that no such subcontracts were awarded during the specified period.

(2) *Final reports.* Upon DOE's request, the Contractor shall submit to DOE, prior to closeout of the contract, a list of all subject inventions disclosed during the performance period of the contract, or a statement that no subject inventions were made during the contract performance period; and a list of all subcontracts containing a patent clause and awarded by the Contractor during the contract performance period, or a statement that no such subcontracts were awarded during the contract performance period.

(n) EXAMINATION OF RECORDS RELATING TO SUBJECT INVENTIONS.

(1) *Contractor compliance.* Until the expiration of three (3) years after final payment under this contract, the Contracting Officer or any authorized representative may examine any books (including laboratory notebooks), records, documents, and other supporting data of the Contractor, which the Contracting Officer or authorized representative deems reasonably pertinent to the discovery or identification of subject inventions, including exceptional circumstance subject inventions, or to determine Contractor compliance with any requirement of this clause.

(2) *Unreported inventions.* If the Contracting Officer is aware of an invention that is not disclosed by the Contractor to DOE, and the Contracting Officer believes the unreported invention may be a subject invention, including exceptional circumstance subject inventions, DOE may require the Contractor to submit to DOE a disclosure of the invention for a determination of ownership rights.

(3) *Confidentiality.* Any examination of records under this paragraph is subject to appropriate conditions to protect the confidentiality of the information involved.

(4) *Power of inspection.* With respect to a subject invention for which the Contractor has responsibility for patent prosecution, the Contractor shall furnish the Government, upon request by DOE, an irrevocable power to inspect and make copies of a prosecution file for any patent application claiming the subject invention.

(o) FACILITIES LICENSE.

In addition to the rights of the parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this contract, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive, paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the Contractor at any time through completion of this contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which cover articles, materials, or product manufactured at the facility (1) to practice or have practiced by or for the Government at the facility, and (2) to transfer such license with the transfer of that facility. Notwithstanding the acceptance or exercise by the Government of these rights, the Government may contest at any time the enforceability, validity or scope of, or title to, any rights or patents herein licensed.

(p) ATOMIC ENERGY.

(1) *Pecuniary awards.* No claim for pecuniary award of compensation under the provisions of the Atomic Energy Act of 1954, as amended, may be asserted with respect to any invention or discovery made or conceived in the course of or under this contract.

(2) *Patent agreements.* Except as otherwise authorized in writing by the Contracting Officer, the Contractor shall obtain patent agreements to effectuate the provisions of subparagraph (p)(1) of this clause from all persons who perform any part of the work under this contract, except nontechnical personnel, such as clerical employees and manual laborers.

(q) CLASSIFIED INVENTIONS.

(1) *Approval for filing a foreign patent application*. The Contractor shall not file or cause to be filed an application or registration for a patent disclosing a subject invention related to classified subject matter in any country other than the United States without first obtaining the written approval of the Contracting Officer.

(2) *Transmission of classified subject matter*. If in accordance with this clause the Contractor files a patent application in the United States disclosing a subject invention that is classified for reasons of security, the Contractor shall observe all applicable security regulations covering the transmission of classified subject matter.

If the Contractor transmits a patent application disclosing a classified subject invention to the United States Patent and Trademark Office (USPTO), the Contractor shall submit a separate letter to the USPTO identifying the contract or contracts by agency and agreement number that require security classification markings to be placed on the patent application.

(3) Inclusion of clause in subcontracts. The Contractor agrees to include the substance of this clause in subcontracts at any tier that cover or are likely to cover subject matter classified for reasons of security.

(r) PATENT FUNCTIONS.

Upon the written request of the Contracting Officer or Patent Counsel, the Contractor agrees to make reasonable efforts to support DOE in accomplishing patent-related functions for work arising out of the contract, including, but not limited to, the prosecution of patent applications, and the determination of questions of novelty, patentability, and inventorship.

(s) EDUCATIONAL AWARDS SUBJECT TO 35 U.S.C. 212.

The Contractor shall notify the Contracting Officer prior to the placement of any person subject to 35 U.S.C. 212 in an area of technology or task (1) related to exceptional circumstance technology or (2) which is subject to treaties or international agreements as set forth in paragraph (b)(3) of this clause or agreements other than funding agreements. The Contracting Officer may disapprove of any such placement.

(t) ANNUAL APPRAISAL BY PATENT COUNSEL.

Patent Counsel may conduct an annual appraisal to evaluate the Contractor's effectiveness in identifying and protecting subject inventions in accordance with DOE policy.

CLAUSE I.111 - RESERVED

CLAUSE I.112 – DEAR 970.5228-1 INSURANCE-LITIGATION AND CLAIMS (JUL 2013)

(a) The contractor must comply with 10 CFR part 719, Contractor Legal Management Requirements, if applicable.

(b)(1) Except as provided in paragraph (b)(2) of this clause, the contractor shall procure and maintain such bonds and insurance as required by law or approved in writing by the Contracting Officer.

(2) The contractor may, with the approval of the Contracting Officer, maintain a self-insurance program in accordance with FAR 28.308; provided that, with respect to workers' compensation, the contractor is qualified pursuant to statutory authority.

(3) All bonds and insurance required by this clause shall be in a form and amount and for those periods as the Contracting Officer may require or approve and with sureties and insurers approved by the Contracting Officer.

(c) The contractor agrees to submit for the Contracting Officer's approval, to the extent and in the manner required by the Contracting Officer, any other bonds and insurance that are maintained by the contractor in connection with the performance of this contract and for which the contractor seeks reimbursement. If an insurance cost (whether a premium for commercial insurance or related to self-insurance) includes a portion covering costs made unallowable elsewhere in the contract, and the share of the cost for coverage for the unallowable cost is determinable, the portion of the cost that is otherwise an allowable cost under this contract is reimbursable to the extent determined by the Contracting Officer.

(d) Except as provided in paragraph (f) of this clause, or specifically disallowed elsewhere in this contract, the contractor shall be reimbursed—

(1) For that portion of the reasonable cost of bonds and insurance allocable to this contract required in accordance with contract terms or approved under this clause, and

(2) For liabilities (and reasonable expenses incidental to such liabilities, including litigation costs) to third persons not compensated by insurance without regard to the clause of this contract entitled “Obligation of Funds.”

(e) The Government's liability under paragraph (d) of this clause is subject to the availability of appropriated funds. Nothing in this contract shall be construed as implying that the Congress will, at a later date, appropriate funds sufficient to meet deficiencies.

(f)(1) Notwithstanding any other provision of this contract, the contractor shall not be reimbursed for liabilities to third parties, including contractor employees, and directly associated costs which may include but are not limited to litigation costs, counsel fees, judgments and settlements—

(i) Which are otherwise unallowable by law or the provisions of this contract, including the cost reimbursement limitations contained in 48 CFR part 31, as supplemented by 48 CFR 970.31;

(ii) For which the contractor has failed to insure or to maintain insurance as required by law, this contract, or by the written direction of the Contracting Officer; or

(iii) Which were caused by contractor managerial personnel's—

(A) Willful misconduct;

(B) Lack of good faith; or

(C) Failure to exercise prudent business judgment, which means failure to act in the same manner as a prudent person in the conduct of competitive business; or, in the case of a non-profit educational institution, failure to act in the manner that a prudent person would under the circumstances prevailing at the time the decision to incur the cost is made.

(2) The term "contractor's managerial personnel" is defined in the Property clause in this contract.

(g)(1) All litigation costs, including counsel fees, judgments and settlements shall be segregated and accounted for by the contractor separately. If the Contracting Officer provisionally disallows such costs, then the contractor may not use funds advanced by DOE under the contract to finance the litigation.

(2) Punitive damages are not allowable unless the act or failure to act which gave rise to the liability resulted from compliance with specific terms and conditions of the contract or written instructions from the Contracting Officer.

(3) The portion of the cost of insurance obtained by the contractor that is allocable to coverage of liabilities referred to in paragraph (f) of this clause is not allowable.

(h) The contractor may at its own expense and not as an allowable cost procure for its own protection insurance to compensate the contractor for any unallowable or non-reimbursable costs incurred in connection with contract performance.

(End of clause)

CLAUSE I.113 - DEAR 970.5229-1 STATE AND LOCAL TAXES (DEC 2000)

(a) The contractor agrees to notify the contracting officer of any State or local tax, fee, or charge levied or purported to be levied on or collected from the contractor with respect to the contract work, any transaction thereunder, or property in the custody or control of the contractor and constituting an allowable item of cost if due and payable, but which the contractor has reason to believe, or the contracting officer has advised the contractor, is or may be inapplicable or invalid; and the contractor further agrees to refrain from paying any such tax, fee, or charge unless authorized in writing by the contracting officer. Any State or local tax, fee, or charge paid with the approval of the contracting officer or on the basis of advice from the contracting officer that such tax, fee, or charge is applicable and valid,

and which would otherwise be an allowable item of cost, shall not be disallowed as an item of cost by reason of any subsequent ruling or determination that such tax, fee, or charge was in fact inapplicable or invalid.

(b) The contractor agrees to take such action as may be required or approved by the contracting officer to cause any State or local tax, fee, or charge which would be an allowable cost to be paid under protest; and to take such action as may be required or approved by the contracting officer to seek recovery of any payments made, including assignment to the Government or its designee of all rights to an abatement or refund thereof, and granting permission for the Government to join with the contractor in any proceedings for the recovery thereof or to sue for recovery in the name of the contractor. If the contracting officer directs the contractor to institute litigation to enjoin the collection of or to recover payment of any such tax, fee, or charge referred to above, or if a claim or suit is filed against the contractor for a tax, fee, or charge it has refrained from paying in accordance with this clause, the procedures and requirements of the clause entitled "Insurance-Litigation and Claims" shall apply and the costs and expenses incurred by the contractor shall be allowable items of costs, as provided in this contract, together with the amount of any judgment rendered against the contractor.

(c) The Government shall hold the contractor harmless from penalties and interest incurred through compliance with this clause. All recoveries or credits in respect of the foregoing taxes, fees, and charges (including interest) shall inure to and be for the sole benefit of the Government.

CLAUSE I.114 - RESERVED

CLAUSE I.115 - DEAR 970.5231-4 PREEXISTING CONDITIONS (DEC 2000) (ALTERNATE II) (DEC 2000)

(a) The Department of Energy agrees to reimburse the contractor, and the contractor shall not be held responsible, for any liability (including without limitation, a claim involving strict or absolute liability and any civil fine or penalty), expense, or remediation cost, but limited to those of a civil nature, which may be incurred by, imposed on, or asserted against the contractor arising out of any condition, act, or failure to act which occurred before the contractor assumed responsibility on January 1, 2007. To the extent the acts or omissions of the contractor cause or add to any liability, expense or remediation cost resulting from conditions in existence prior to January 1, 2007, the contractor shall be responsible in accordance with the terms and conditions of this contract.

(b) The obligations of the Department of Energy under this clause are subject to the availability of appropriated funds.

(c) The contractor has the duty to inspect the facilities and sites and timely identify to the contracting officer those conditions which it believes could give rise to a liability, obligation, loss, damage, penalty, fine, claim, action, suit, cost, expense, or disbursement or areas of actual or potential noncompliance with the terms and conditions of this contract or applicable law or regulation. The contractor has the responsibility to take corrective action, as directed by the contracting officer and as required elsewhere in this contract.

CLAUSE I.116 - DEAR 970.5232-1 REDUCTION OR SUSPENSION OF ADVANCE, PARTIAL, OR PROGRESS PAYMENTS (DEC 2000)

(a) The contracting officer may reduce or suspend further advance, partial, or progress payments to the contractor upon a written determination by the Senior Procurement Executive that substantial evidence exists that the Contractor's request for advance, partial, or progress payment is based on fraud.

(b) The Contractor shall be afforded a reasonable opportunity to respond in writing.

CLAUSE I.117 - DEAR 970.5232-2 PAYMENTS AND ADVANCES (DEC 2000) (ALTERNATES II AND III) (DEC 2000)

(a) Payment of Total available fee: Base Fee and Performance Fee. The base fee amount, if any, is payable in equal monthly installments. Total available fee amount earned is payable following the Government's Determination of Total Available Fee Amount Earned in accordance with the clause of this contract entitled "Total Available Fee: Base Fee Amount and Performance Fee Amount." Base fee amount and total available fee amount earned payments shall be made by direct payment or withdrawn from funds advanced or available under this contract, as determined by the contracting officer. The contracting officer may offset against any such fee payment the amounts owed to the Government by the contractor, including any amounts owed for disallowed costs under this contract. No base fee amount or total available fee amount earned payment may be withdrawn against the payments cleared financing arrangement without the prior written approval of the contracting officer.

(b) *Payments on Account of Allowable Costs*. The contracting officer and the contractor shall agree as to the extent to which payment for allowable costs or payments for other items specifically approved in writing by the contracting officer (for example, negotiated fixed amounts) shall be made from advances of Government funds. When pension contributions are paid by the contractor to the retirement fund less frequently than quarterly, accrued costs therefor shall be excluded from costs for payment purposes until such costs are paid. If pension

contributions are paid on a quarterly or more frequent basis, accrual therefor may be included in costs for payment purposes, provided that they are paid to the fund within 30 days after the close of the period covered. If payments are not made to the fund within such 30-day period, pension contribution costs shall be excluded from cost for payment purposes until payment has been made.

(c) *Special financial institution account--use*. All advances of Government funds shall be withdrawn pursuant to a payments cleared financing arrangement prescribed by DOE in favor of the financial institution or, at the option of the Government, shall be made by direct payment or other payment mechanism to the contractor, and shall be deposited only in the special financial institution account referred to in the Special Financial Institution Account Agreement, which is incorporated into this contract as Appendix C. No part of the funds in the special financial institution account shall be commingled with any funds of the contractor or used for a purpose other than that of making payments for costs allowable and, if applicable, fees earned under this contract, negotiated fixed amounts, or payments for other items specifically approved in writing by the contracting officer.
If the contracting officer determines that the balance of such special financial institution account exceeds the contractor's current needs, the contractor shall promptly make such disposition of the excess as the contracting officer may direct.

(d) *Title to funds advanced*. Title to the unexpended balance of any funds advanced and of any special financial institution account established pursuant to this clause shall remain in the Government and be superior to any claim or lien of the financial institution of deposit or others. It is understood that an advance to the contractor hereunder is not a loan to the contractor, and will not require the payment of interest by the contractor, and that the contractor acquires no right, title or interest in or to such advance other than the right to make expenditures therefrom, as provided in this clause.

(e) *Financial settlement*. The Government shall promptly pay to the contractor the unpaid balance of allowable costs (or other items specifically approved in writing by the contracting officer) and fee upon termination of the work, expiration of the term of the contract, or completion of the work and its acceptance by the Government after:

(1) Compliance by the contractor with DOE's patent clearance requirements, and

(2) The furnishing by the contractor of:

(i) An assignment of the contractor's rights to any refunds, rebates, allowances, accounts receivable, collections accruing to the

contractor in connection with the work under this contract, or other credits applicable to allowable costs under the contract;

(ii) A closing financial statement;

(iii) The accounting for Government-owned property required by the clause entitled "Property"; and

(iv) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract subject only to the following exceptions:

(A) Specified claims in stated amounts or in estimated amounts where the amounts are not susceptible to exact statement by the contractor;

(B) Claims, together with reasonable expenses incidental thereto, based upon liabilities of the contractor to third parties arising out of the performance of this contract; provided that such claims are not known to the contractor on the date of the execution of the release; and provided further that the contractor gives notice of such claims in writing to the contracting officer promptly, but not more than one (1) year after the contractor's right of action first accrues. In addition, the contractor shall provide prompt notice to the contracting officer of all potential claims under this clause, whether in litigation or not (see also Contract Clause I.112, DEAR 970.5228-1, "Insurance--Litigation and Claims");

(C) Claims for reimbursement of costs (other than expenses of the contractor by reason of any indemnification of the Government against patent liability), including reasonable expenses incidental thereto, incurred by the contractor under the provisions of this contract relating to patents; and

(D) Claims recognizable under the clause entitled, Nuclear Hazards Indemnity Agreement.

(3) In arriving at the amount due the contractor under this clause, there shall be deducted,

(i) Any claim which the Government may have against the contractor in connection with this contract, and

(ii) Deductions due under the terms of this contract, and not otherwise recovered by or credited to the Government. The unliquidated balance of the special financial institution account may be applied to the amount due and any balance shall be returned to the Government forthwith.

(f) *Claims*. Claims for credit against funds advanced for payment shall be accompanied by such supporting documents and justification as the contracting officer shall prescribe.

(g) *Discounts*. The contractor shall take and afford the Government the advantage of all known and available cash and trade discounts, rebates, allowances, credits, salvage, and commissions unless the contracting officer finds that action is not in the best interest of the Government.

(h) *Collections*. All collections accruing to the contractor in connection with the work under this contract, except for the contractor's fee and royalties or other income accruing to the contractor from technology transfer activities in accordance with this contract, shall be Government property and shall be processed and accounted for in accordance with applicable requirements imposed by the contracting officer pursuant to the Laws, regulations, and DOE directives clause of this contract and, to the extent consistent with those requirements, shall be deposited in the special financial institution account or otherwise made available for payment of allowable costs under this contract, unless otherwise directed by the contracting officer.

(i) *Direct payment of charges*. The Government reserves the right, upon ten days written notice from the contracting officer to the contractor, to pay directly to the persons concerned, all amounts due which otherwise would be allowable under this contract. Any payment so made shall discharge the Government of all liability to the contractor therefor.

(j) *Determining allowable costs*. The contracting officer shall determine allowable costs in accordance with the Federal Acquisition Regulation subpart 31.2 and the Department of Energy Acquisition Regulation subpart 48 CFR 970.31 in effect on the date of this contract and other provisions of this contract.

(k) *Review and approval of costs incurred*. The contractor shall prepare and submit annually as of September 30, a "Statement of Costs Incurred and Claimed" (Cost Statement) for the total of net expenditures accrued (i.e., net costs incurred) for the period covered by the Cost Statement. The contractor shall certify the Cost Statement subject to the penalty provisions for unallowable costs as stated in sections 306(b) and (i) of the Federal Property and Administrative Services Act of

1949 (41 U.S.C. 256), as amended. DOE, after audit and appropriate adjustment, will approve such Cost Statement. This approval by DOE will constitute an acknowledgment by DOE that the net costs incurred are allowable under the contract and that they have been recorded in the accounts maintained by the contractor in accordance with DOE accounting policies, but will not relieve the contractor of responsibility for DOE's assets in its care, for appropriate subsequent adjustments, or for errors later becoming known to DOE.

CLAUSE I.118 – DEAR 970.5232-3 ACCOUNTS, RECORDS AND INSPECTION (DEC 2010)

(a) Accounts. The Contractor shall maintain a separate and distinct set of accounts, records, documents, and other evidence showing and supporting: all allowable costs incurred; collections accruing to the Contractor in connection with the work under this contract, other applicable credits, negotiated fixed amounts, and fee accruals under this contract; and the receipt, use, and disposition of all Government property coming into the possession of the Contractor under this contract. The system of accounts employed by the Contractor shall be satisfactory to DOE and in accordance with generally accepted accounting principles consistently applied.

(b) Inspection and audit of accounts and records. All books of account and records relating to this contract shall be subject to inspection and audit by DOE or its designees in accordance with the provisions of Clause, Access to and ownership of records, at all reasonable times, before and during the period of retention provided for in paragraph (d) of this clause, and the Contractor shall afford DOE proper facilities for such inspection and audit.

(c) Audit of subcontractors' records. The Contractor also agrees, with respect to any subcontracts (including fixed-price or unit-price subcontracts or purchase orders) where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor of any tier, to either conduct an audit of the subcontractor's costs or arrange for such an audit to be performed by the cognizant government audit agency through the Contracting Officer.

(d) Disposition of records. Except as agreed upon by the Government and the Contractor, all financial and cost reports, books of account and supporting documents, system files, data bases, and other data evidencing costs allowable, collections accruing to the Contractor in connection with the work under this contract, other applicable credits, and fee accruals under this contract, shall be the property of the Government, and shall be delivered to the Government or otherwise disposed of by the Contractor either as the Contracting Officer may from time to time direct during the progress of the work or, in any event, as the Contracting Officer shall direct upon completion or termination of this contract and final audit of accounts hereunder. Except as otherwise provided in this

contract, including provisions of Clause 970.5204-3, Access to and Ownership of Records, all other records in the possession of the Contractor relating to this contract shall be preserved by the Contractor for a period of three years after final payment under this contract or otherwise disposed of in such manner as may be agreed upon by the Government and the Contractor.

(e) Reports. The Contractor shall furnish such progress reports and schedules, financial and cost reports, and other reports concerning the work under this contract as the Contracting Officer may from time to time require.

(f) Inspections. The DOE shall have the right to inspect the work and activities of the Contractor under this contract at such time and in such manner as it shall deem appropriate.

(g) Subcontracts. The Contractor further agrees to require the inclusion of provisions similar to those in paragraphs (a) through (g) and paragraph (h) of this clause in all subcontracts (including fixed-price or unit-price subcontracts or purchase orders) of any tier entered into hereunder where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor.

(h) Comptroller General.

(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the contractor's or subcontractor’s directly pertinent records involving transactions related to this contract or a subcontract hereunder and to interview any employee regarding such transactions.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(3) Nothing in this contract shall be deemed to preclude an audit by the Government Accountability Office of any transaction under this contract.

(i) Internal audit. The Contractor agrees to design and maintain an internal audit plan and an internal audit organization.

(4) Upon contract award, the exercise of any contract option, or the extension of the contract, the Contractor must submit to the Contracting Officer for approval an Internal Audit Implementation Design to include the overall strategy for internal audits. The Audit Implementation Design must describe:

(i) The internal audit organization's placement within the contractor's organization and its reporting requirements;

(ii) The audit organization's size and the experience and educational standards of its staff;

(iii) The audit organization's relationship to the corporate entities of the Contractor;

(iv) The standards to be used in conducting the internal audits;

(v) The overall internal audit strategy of this contract, considering particularly the method of auditing costs incurred in the performance of the contract;

(vi) The intended use of external audit resources;

(vii) The plan for audit of subcontracts, both pre-award and post-award; and;

(viii) The schedule for peer review of internal audits by other contractor internal audit organizations, or other independent third party audit entities approved by the DOE Contracting Officer.

(5) By each January 31 of the contract performance period, the Contractor must submit an annual audit report, providing a summary of the audit activities undertaken during the previous fiscal year. That report shall reflect the results of the internal audits during the previous fiscal year and the actions to be taken to resolve weaknesses identified in the contractor's system of business, financial, or management controls.

(6) By each June 30 of the contract performance period, the Contractor must submit to the Contracting Officer an annual audit plan for the activities to be undertaken by the internal audit organization during the next fiscal year that is designed to test the costs incurred and contractor management systems described in the internal audit design.

(7) The Contracting Officer may require revisions to documents submitted under paragraphs (i)(1), (i)(2), and (i)(3) of this clause, including the design plan for the internal audits, the annual report, and the annual internal audits.

(i) Remedies. If at any time during contract performance, the Contracting Officer determines that unallowable costs were claimed by the Contractor to the extent of making the contractor's management controls suspect, or the contractor's management systems that validate costs incurred and claimed suspect, the Contracting Officer may, in his or her sole discretion, require the Contractor to cease using the special financial institution account in whole or with regard to

specified accounts, requiring reimbursable costs to be claimed by periodic vouchering. In addition, the Contracting Officer, where he or she deems it appropriate, may: Impose a penalty under 48 CFR 970.5242-1, Penalties for Unallowable Costs; require a refund; reduce the contractor's otherwise earned fee; and take such other action as authorized in law, regulation, or this contract.

CLAUSE I.119 - DEAR 970.5232-4 OBLIGATION OF FUNDS (DEC 2000)

(a) Obligation of funds. The amount presently obligated by the Government with respect to this contract is $1,963,404,567.09. Such amount may be increased unilaterally by DOE by written notice to the contractor and may be increased or decreased by written agreement of the parties (whether or not by formal modification of this contract). Estimated collections from others for work and services to be performed under this contract are not included in the amount presently obligated. Such collections, to the extent actually received by the contractor, shall be processed and accounted for in accordance with applicable requirements imposed by the contracting officer pursuant to the Laws, regulations, and DOE directives clause of this contract. Nothing in this paragraph is to be construed as authorizing the contractor to exceed limitations stated in financial plans established by DOE and furnished to the contractor from time to time under this contract.

(b) Limitation on payment by the Government. Except as otherwise provided in this contract and except for costs which may be incurred by the contractor pursuant to the Termination clause of this contract or costs of claims allowable under the contract occurring after completion or termination and not released by the contractor at the time of financial settlement of the contract in accordance with the clause entitled “Payments and Advances,” payment by the Government under this contract on account of allowable costs shall not, in the aggregate, exceed the amount obligated with respect to this contract, less the contractor's fee and any negotiated fixed amount. Unless expressly negated in this contract, payment on account of those costs excepted in the preceding sentence which are in excess of the amount obligated with respect to this contract shall be subject to the availability of:

(1) Collections accruing to the contractor in connection with the work under this contract and processed and accounted for in accordance with applicable requirements imposed by the contracting officer pursuant to the Laws, regulations, and DOE directives clause of this contract, and

(2) Other funds which DOE may legally use for such purpose provided DOE will use its best efforts to obtain the appropriation of funds for this purpose if not otherwise available.

(c) Notices--Contractor excused from further performance. The contractor shall notify DOE in writing whenever the unexpended balance of available funds (including collections available under paragraph (a) of this clause), plus the contractor's best estimate of collections to be received and available during the 45 day period hereinafter specified, is in the contractor's best judgment sufficient to continue contract operations at the programmed rate for only 45 days and to cover the contractor's unpaid fee and any negotiated fixed amounts, and outstanding encumbrances and liabilities on account of costs allowable under the contract at the end of such period. Whenever the unexpended balance of available funds (including collections available under paragraph (a) of this clause), less the amount of the contractor's fee then earned but not paid and any negotiated fixed amounts, is in the contractor's best judgment sufficient only to liquidate outstanding encumbrances and liabilities on account of costs allowable under this contract, the contractor shall immediately notify DOE and shall make no further encumbrances or expenditures (except to liquidate existing encumbrances and liabilities), and, unless the parties otherwise agree, the contractor shall be excused from further performance (except such performance as may become necessary in connection with termination by the Government) and the performance of all work hereunder will be deemed to have been terminated for the convenience of the Government in accordance with the provisions of the Termination clause of this contract.

(d) Financial plans; cost and encumbrance limitations. In addition to the limitations provided for elsewhere in this contract, DOE may, through financial plans, such as Approved Funding Programs, or other directives issued to the contractor, establish controls on the costs to be incurred and encumbrances to be made in the performance of the contract work. Such plans and directives may be amended or supplemented from time to time by DOE. The contractor agrees

(1) to comply with the specific limitations (ceilings) on costs and encumbrances set forth in such plans and directives,

(2) to comply with other requirements of such plans and directives, and

(3) to notify DOE promptly, in writing, whenever it has reason to believe that any limitation on costs and encumbrances will be exceeded or substantially underrun.

(5) Government's right to terminate not affected. The giving of any notice under this clause shall not be construed to waive or impair any right of the Government to terminate the contract under the provisions of the Termination clause of this contract.

CLAUSE I.120 - DEAR 970.5232-5 LIABILITY WITH RESPECT TO COST ACCOUNTING STANDARDS (DEC 2000)

(a) The contractor is not liable to the Government for increased costs or interest resulting from its failure to comply with the clauses of this contract entitled, "Cost Accounting Standards," and "Administration of Cost Accounting Standards," if its failure to comply with the clauses is caused by the contractor's compliance with published DOE financial management policies and procedures or other requirements established by the Department's Chief Financial Officer or Procurement Executive.

(b) The contractor is not liable to the Government for increased costs or interest resulting from its subcontractors' failure to comply with the clauses at FAR 52.230-2, "Cost Accounting Standards," and FAR 52.230-6, "Administration of Cost Accounting Standards," if the contractor includes in each covered subcontract a clause making the subcontractor liable to the Government for increased costs or interest resulting from the subcontractor's failure to comply with the clauses; and the contractor seeks the subcontract price adjustment and cooperates with the Government in the Government's attempts to recover from the subcontractor.

CLAUSE I.121 - DEAR 970.5232-6 STRATEGIC PARTNERSHIP PROJECT FUNDING AUTHORIZATION (April 23, 2015)

Any uncollectible receivables resulting from the Contractor utilizing contractor corporate funding for reimbursable work shall be the responsibility of the Contractor, and the United States Government shall have no liability to the Contractor for the Contractor's uncollected receivables. The Contractor is permitted to provide advance payment utilizing contractor corporate funds for reimbursable work to be performed by the Contractor for a non-Federal entity in instances where advance payment from that entity is required under the Laws, regulations, and DOE directives clause of this contract and such advance cannot be obtained. The Contractor is also permitted to provide advance payment utilizing contractor corporate funds to continue reimbursable work to be performed by the Contractor for a Federal entity when the term or the funds on a Federal interagency agreement required under the Laws, regulations, and DOE directives clause of this contract have elapsed. The Contractor's utilization of contractor corporate funds does not relieve the Contractor of its responsibility to comply with all requirements for Strategic Partnership Projects applicable to this contract.

(End of clause)

CLAUSE I.122 - DEAR 970.5232-7 FINANCIAL MANAGEMENT SYSTEM (DEC 2000)

The contractor shall maintain and administer a financial management system that is suitable to provide proper accounting in accordance with DOE requirements for assets, liabilities, collections accruing to the contractor in connection with the work under this contract, expenditures, costs, and encumbrances; permits the preparation of accounts and accurate, reliable financial and statistical reports; and assures that accountability for the assets can be maintained. The contractor shall submit to DOE for written approval an annual plan for new financial management systems and/or subsystems and major enhancements and/or upgrades to the currently existing financial systems and/or subsystems. The contractor shall notify DOE thirty (30) days in advance of any planned implementation of any substantial deviation from this plan and, as requested by the contracting officer, shall submit any such deviation to DOE for written approval before implementation.

CLAUSE I.123 - DEAR 970.5232-8 INTEGRATED ACCOUNTING (DEC 2000)

Integrated accounting procedures are required for use under this contract. The contractor's financial management system shall include an integrated accounting system that is linked to DOE's accounts through the use of reciprocal accounts and that has electronic capability to transmit monthly and year-end self-balancing trial balances to the Department's Primary Accounting System for reporting financial activity under this contract in accordance with requirements imposed by the contracting officer pursuant to the Laws, regulations, and DOE directives clause of this contract.

CLAUSE I.124 - DEAR 970.5235-1 FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTER SPONSORING AGREEMENT (DEC 2010)

(a) Pursuant to 48 CFR 35.017-1, this contract constitutes the sponsoring agreement between the Department of Energy and the contractor, which establishes the relationship for the operation of a Department of Energy sponsored Federally Funded Research and Development Center (FFRDC).

(b) In the operation of this FFRDC, the contractor may be provided access beyond that which is common to the normal contractual relationship, to Government and supplier data, including sensitive and proprietary data, and to Government employees and facilities needed to discharge its responsibilities efficiently and effectively. Because of this special relationship, it is essential that the FFRDC be operated in the public interest with objectivity and independence, be free from organizational conflicts of interest, and have full disclosure of its affairs to the Department of Energy.

(c) Unless otherwise provided by the contract, the contractor may accept work from a nonsponsor (as defined in 48 CFR 35.017) in accordance with the requirements and limitations of clause 48 CFR 970.5217-1, Strategic Partnership Projects Program.

(d) As an FFRDC, the contractor shall not use its privileged information or access to government facilities to compete with the private sector. Specific guidance on restricted activities is contained in DOE Order 481.1C, Strategic Partnership Projects (Formerly Known as Work for Others (Non-Department of Energy Funded Work)) or successor version.

CLAUSE I.125 - DEAR 970.5236-1 GOVERNMENT FACILITY SUBCONTRACT APPROVAL (DEC 2000) (DEVIATION)

Upon request of the contracting officer and acceptance thereof by the contractor, the contractor shall procure, by subcontract, the construction of new facilities or the alteration or repair of Government-owned facilities at the plant. Any subcontract entered into under this paragraph shall be subject to the written approval of the contracting officer, in accordance with the provisions of Appendix G, and shall contain the provisions relative to labor and wages required by law to be included in contracts for the construction, alteration, and/or repair, including painting and decorating, of a public building or public work.

CLAUSE I.126 – DEAR 970.5242-1 PENALTIES FOR UNALLOWABLE COSTS (AUG 2009)

(a) Contractors which include unallowable cost in a submission for settlement for cost incurred, may be subject to penalties.

(b) If, during the review of a submission for settlement of cost incurred, the Contracting Officer determines that the submission contains an expressly unallowable cost or a cost determined to be unallowable prior to the submission, the Contracting Officer shall assess a penalty.

(c) Unallowable costs are either expressly unallowable or determined unallowable.

(1) An expressly unallowable cost is a particular item or type of cost which, under the express provisions of an applicable law, regulation, or this contract, is specifically named and stated to be unallowable.

(2) A cost determined unallowable is one which, for that Contractor—

(i) Was subject to a Contracting Officer's final decision and not appealed;

(ii) The Civilian Board of Contract Appeals or a court has previously ruled as unallowable; or

(iii) Was mutually agreed to be unallowable.

(d) If the Contracting Officer determines that a cost submitted by the Contractor in its submission for settlement of cost incurred is—

(1) Expressly unallowable, then the Contracting Officer shall assess a penalty in an amount equal to the disallowed cost allocated to this contract plus interest on the paid portion of the disallowed cost. Interest shall be computed from the date of overpayment to the date of repayment using the interest rate specified by the Secretary of the Treasury pursuant to Pub. L. 92-41 (85 Stat. 97); or

(2) Determined unallowable, then the Contracting Officer shall assess a penalty in an amount equal to two times the amount of the disallowed cost allocated to this contract.

(e) The Contracting Officer may waive the penalty provisions when—

(1) The Contractor withdraws the submission before the formal initiation of an audit of the submission and submits a revised submission;

(2) The amount of the unallowable costs allocated to covered contracts is $10,000 or less; or

(3) The Contractor demonstrates to the Contracting Officer's satisfaction that—

(i) It has established appropriate policies, personnel training, and an internal control and review system that provides assurances that unallowable costs subject to penalties are precluded from the Contractor's submission for settlement of costs; and

(ii) The unallowable costs subject to the penalty were inadvertently incorporated into the submission.

CLAUSE I.127 - DEAR 970.5243-1 CHANGES (DEC 2000)

(a) Changes and adjustment of fee. The contracting officer may at any time and without notice to the sureties, if any, issue written directions within the general scope of this contract requiring additional work or directing the omission of, or variation in, work covered by this contract. If any such direction results in a material change in the amount or character of the work described in the

"Statement of Work," an equitable adjustment of the fee, if any, shall be made in accordance with the agreement of the parties and the contract shall be modified in writing accordingly. Any claim by the contractor for an adjustment under this clause must be asserted in writing within 30 days from the date of receipt by the contractor of the notification of change; provided, however, that the contracting officer, if it is determined that the facts justify such action, may receive and act upon any such claim asserted at any time prior to final payment under this contract. A failure to agree on an equitable adjustment under this clause shall be deemed to be a dispute within the meaning of the clause entitled "Disputes."

(a) Work to continue. Nothing contained in this clause shall excuse the contractor from proceeding with the prosecution of the work in accordance with the requirements of any direction hereunder.

CLAUSE I. 128 – DEAR 970.5244-1 CONTRACTOR PURCHASING SYSTEM (JAN 2013)(DEVIATION: PF 2011-98, PF 2013-64, PF 2015-17)

(a) *General.* The Contractor shall develop, implement, and maintain formal policies, practices, and procedures to be used in the award of subcontracts consistent with this clause and 48 CFR subpart 970.44. The Contractor's purchasing system and methods shall be fully documented, consistently applied, and acceptable to the Department of Energy (DOE) in accordance with 48 CFR 970.4401-1. The Contractor shall maintain file documentation which is appropriate to the value of the purchase and is adequate to establish the propriety of the transaction and the price paid. The Contractor's purchasing performance will be evaluated against such performance criteria and measures as may be set forth elsewhere in this contract. DOE reserves the right at any time to require that the Contractor submit for approval any or all purchases under this contract. The Contractor shall not purchase any item or service, the purchase of which is expressly prohibited by the written direction of DOE, and shall use such special and directed sources as may be expressly required by the DOE Contracting Officer. DOE will conduct periodic appraisals of the Contractor's management of all facets of the purchasing function, including the Contractor's compliance with its approved system and methods. Such appraisals will be performed through the conduct of Contractor Purchasing System Reviews in accordance with 48 CFR subpart 44.3, or, when approved by the Contracting Officer, through the Contractor's participation in the conduct of the Balanced Scorecard performance measurement and performance management system. The Contractor's approved purchasing system and methods shall include the requirements set forth in paragraphs (b) through (y) of this clause.

(b) *Acquisition of utility services.* Utility services shall be acquired in accordance with the requirements of 48 CFR subpart 970.41.

(c) *Acquisition of real property.* Real property shall be acquired in accordance with 48 CFR subpart 917.74.

(d) *Advance notice of proposed subcontract awards.* Advance notice shall be provided in accordance with 48 CFR 970.4401-3.

(e) *Audit of subcontractors.* (1) The Contractor shall provide for—

(i) Periodic post-award audit of cost-reimbursement subcontractors at all tiers; and

(ii) Audits, where necessary, to provide a valid basis for pre-award or cost or price analysis.

(2) Responsibility for determining the costs allowable under each cost-reimbursement subcontract remains with the contractor or next higher-tier subcontractor. The Contractor shall provide, in appropriate cases, for the timely involvement of the Contractor and the DOE Contracting Officer in resolution of subcontract cost allowability.

(3) Where audits of subcontractors at any tier are required, arrangements may be made to have the cognizant Federal agency perform the audit of the subcontract. These arrangements shall be made administratively between DOE and the other agency involved and shall provide for the cognizant agency to audit in an appropriate manner in light of the magnitude and nature of the subcontract. In no case, however, shall these arrangements preclude determination by the DOE Contracting Officer of the allowability or unallowability of subcontractor costs claimed for reimbursement by the Contractor.

(4) Allowable costs for cost reimbursable subcontracts are to be determined in accordance with the cost principles of 48 CFR Part 31, appropriate for the type of organization to which the subcontract is to be awarded, as supplemented by 48 CFR part 931. Allowable costs in the purchase or transfer from contractor-affiliated sources shall be determined in accordance with 48 CFR 970.4402-3 and 48 CFR 31.205-26(e).

(f) *Bonds and insurance.* (1) The Contractor shall require performance bonds in penal amounts as set forth in 48 CFR 28.102-2(a) for all fixed-priced and unit-priced construction subcontracts in excess of $100,000. The Contractor shall consider the use of performance bonds in fixed-price non-construction subcontracts, where appropriate.

(2) For fixed-price, unit-priced and cost reimbursement construction subcontracts in excess of $100,000, a payment bond shall be obtained on Standard Form 25A modified to name the Contractor as well as the United States of America as obligees. The penal amounts shall be determined in accordance with 48 CFR 28.102-2(b).

(3) For fixed-price, unit-priced and cost-reimbursement construction subcontracts greater than $25,000, but not greater than $100,000, the Contractor shall select two or more of the payment protections at 48 CFR 28.102-1(b), giving particular consideration to the inclusion of an irrevocable letter of credit as one of the selected alternatives.

(4) A subcontractor may have more than one acceptable surety in both construction and other subcontracts, provided that in no case will the liability of any one surety exceed the

maximum penal sum for which it is qualified for any one obligation. For subcontracts other than construction, a co-surety (two or more sureties together) may reinsure amounts in excess of their individual capacity, with each surety having the required underwriting capacity that appears on the list of acceptable corporate sureties.

(g) *Buy American.* The Contractor shall comply with the provisions of the Buy American Act as reflected in 48 CFR 52.225-1 and 48 CFR 52.225-9. The Contractor shall forward determinations of non-availability of individual items to the DOE Contracting Officer for approval. Items in excess of $500,000 require the prior concurrence of the Head of Contracting Activity. If, however, the Contractor has an approved purchasing system, the Head of the Contracting Activity may authorize the Contractor to make determinations of non-availability for individual items valued at $500,000 or less.

(h) *Construction and architect-engineer subcontracts.* (1) *Independent Estimates.* A detailed, independent estimate of costs shall be prepared for all construction work to be subcontracted.

(2) *Specifications.* Specifications for construction shall be prepared in accordance with the DOE publication entitled "General Design Criteria Manual."

(3) *Prevention of conflict of interest.* (i) The Contractor shall not award a subcontract for construction to the architect-engineer firm or an affiliate that prepared the design. This prohibition does not preclude the award of a "turnkey" subcontract so long as the subcontractor assumes all liability for defects in design and construction and consequential damages.

(ii) The Contractor shall not award both a cost-reimbursement subcontract and a fixed-price subcontract for construction or architect-engineer services or any combination thereof to the same firm where those subcontracts will be performed at the same site.

(iii) The Contractor shall not employ the construction subcontractor or an affiliate to inspect the firm's work. The contractor shall assure that the working relationships of the construction subcontractor and the subcontractor inspecting its work and the authority of the inspector are clearly defined.

(i) *Contractor-affiliated sources.* Equipment, materials, supplies, or services from a contractor-affiliated source shall be purchased or transferred in accordance with 48 CFR 970.4402-3.

(j) *Contractor-subcontractor relationship.* The obligations of the Contractor under paragraph (a) of this clause, including the development of the purchasing system and methods, and purchases made pursuant thereto, shall not relieve the Contractor of any obligation under this contract (including, among other things, the obligation to properly supervise, administer, and coordinate the work of subcontractors). Subcontracts shall be in the name of the Contractor, and shall not bind or purport to bind the Government.

(k) *Government Property.* The Contractor shall establish and maintain a property management system that complies with criteria in 48 CFR 970.5245-1, Property, and 48 CFR 52.245-1, Government Property.

(l) *Indemnification.* Except for Price-Anderson Nuclear Hazards Indemnity, no subcontractor may be indemnified except with the prior approval of the Senior Procurement Executive.

(m) *Leasing of motor vehicles.* Contractors shall comply with 48 CFR subpart 8.11 and 48 CFR subpart 908.11.

(n) [Reserved]

(o) *Management, acquisition and use of information resources.* Requirements for automatic data processing resources and telecommunications facilities, services, and equipment, shall be reviewed and approved in accordance with applicable DOE Orders and regulations regarding information resources.

(p) *Priorities, allocations and allotments.* Priorities, allocations and allotments shall be extended to appropriate subcontracts in accordance with the clause or clauses of this contract dealing with priorities and allocations.

(q) *Purchase of special items.* Purchase of the following items shall be in accordance with the following provisions of 48 CFR subpart 8.5, 48 CFR subpart 908.71, Federal Management Regulation 41 CFR part 102, and the Federal Property Management Regulation 41 CFR chapter 101:

(1) Motor vehicles—48 CFR 908.7101

(2) Aircraft—48 CFR 908.7102

(3) Security Cabinets—48 CFR 908.7106

(4) Alcohol—48 CFR 908.7107

(5) Helium—48 CFR subpart 8.5

(6) Fuels and packaged petroleum products—48 CFR 908.7109

(7) Coal—48 CFR 908.7110

(8) Arms and Ammunition—48 CFR 908.7111

(9) Heavy Water—48 CFR 908.7121(a)

(10) Precious Metals—48 CFR 908.7121(b)

(11) Lithium—48 CFR 908.7121(c)

(12) Products and services of the blind and severely handicapped—41 CFR 101-26.701

(13) Products made in Federal penal and correctional institutions—41 CFR 101-26.702.

(r) *Purchase versus lease determinations.* Contractors shall determine whether required equipment and property should be purchased or leased, and establish appropriate thresholds for application of lease versus purchase determinations. Such determinations shall be made—

(1) At time of original acquisition;

(2) When lease renewals are being considered; and

(3) At other times as circumstances warrant.

(s) *Quality assurance.* Contractors shall provide no less protection for the Government in its subcontracts than is provided in the prime contract.

(t) *Setoff of assigned subcontractor proceeds.* Where a subcontractor has been permitted to assign payments to a financial institution, the assignment shall treat any right of setoff in accordance with 48 CFR 932.803.

(u) *Strategic and critical materials.* The Contractor may use strategic and critical materials in the National Defense Stockpile.

(v) *Termination.* When subcontracts are terminated as a result of the termination of all or a portion of this contract, the Contractor shall settle with subcontractors in conformity with the policies and principles relating to settlement of prime contracts in 48 CFR subparts 49.1, 49.2 and 49.3. When subcontracts are terminated for reasons other than termination of this contract, the Contractor shall settle such subcontracts in general conformity with the policies and principles in 48 CFR subparts 49.1, 49.2, 49.3 and 49.4. Each such termination shall be documented and consistent with the terms of this contract. Terminations which require approval by the Government shall be supported by accounting data and other information as may be directed by the Contracting Officer.

(w) *Unclassified controlled nuclear information.* Subcontracts involving unclassified uncontrolled nuclear information shall be treated in accordance with 10 CFR part 1017.

(x) *Subcontract flowdown requirements.* In addition to terms and conditions that are included in the prime contract which direct application of such terms and conditions in appropriate subcontracts, the Contractor shall include the following clauses in subcontracts, as applicable:

(1) Davis-Bacon clauses prescribed in 48 CFR 22.407.

(2) Foreign Travel clause prescribed in 48 CFR 952.247-70.

(3) Counterintelligence clause prescribed in 48 CFR 970.0404-4(a).

(4) Service Contract Act clauses prescribed in 48 CFR 22.1006.

(5) State and local taxes clause prescribed in 48 CFR 970.2904-1.

(6) Cost or pricing data clauses prescribed in 48 CFR 970.1504-3-1(b).

(7) Nondisplacement of Qualified Workers clause prescribed in 48 CFR 22.1207.

(8) Service Contract Reporting clause prescribed in 48 CFR 4.1705.

(9) Minimum Wages under Executive Order 13658 clause prescribed in 48 CFR 22.1906.

(y) *Legal services.* Contractor purchases of litigation and other legal services are subject to the requirements in 10 CFR part 719 and the requirements of this clause.

(End of clause)

CLAUSE I.129 - DEAR 970.5245-1 PROPERTY (JAN 2013) (ALTERNATE I) (DEC 2000)

(a) *Furnishing of Government property.* The Government reserves the right to furnish any property or services required for the performance of the work under this contract.

(b) *Title to property.* Except as otherwise provided by the Contracting Officer, title to all materials, equipment, supplies, and tangible personal property of every kind and description purchased by the Contractor, for the cost of which the Contractor is entitled to be reimbursed as a direct item of cost under this contract, shall pass directly from the vendor to the Government. The Government reserves the right to inspect, and to accept or reject, any item of such property. The Contractor shall make such disposition of rejected items as the Contracting Officer shall direct. Title to other property, the cost of which is reimbursable to the Contractor under this contract, shall pass to and vest in the Government upon (1) issuance for use of such property in the performance of this contract, or (2) commencement of processing or use of such property in the performance of this contract, or (3) reimbursement of the cost thereof by the Government, whichever first occurs. Property furnished by the Government and property purchased or furnished by the Contractor, title to which vests in the Government, under this paragraph are hereinafter referred to as Government property. Title to Government property shall not be affected by the incorporation of the property into or the attachment of it to any property not owned by the Government, nor shall such Government property or any part thereof, be or become a fixture or lose its identity as personality by reason of affixation to any realty.

(c) *Identification.* To the extent directed by the Contracting Officer, the Contractor shall identify Government property coming into the Contractor's possession or custody, by

marking and segregating in such a way, satisfactory to the Contracting Officer, as shall indicate its ownership by the Government.

(d) *Disposition.* The Contractor shall make such disposition of Government property which has come into the possession or custody of the Contractor under this contract as the Contracting Officer may direct during the progress of the work or upon completion or termination of this contract. The Contractor may, upon such terms and conditions as the Contracting Officer may approve, sell, or exchange such property, or acquire such property at a price agreed upon by the Contracting Officer and the Contractor as the fair value thereof. The amount received by the Contractor as the result of any disposition, or the agreed fair value of any such property acquired by the Contractor, shall be applied in reduction of costs allowable under this contract or shall be otherwise credited to account to the Government, as the Contracting Officer may direct. Upon completion of the work or the termination of this contract, the Contractor shall render an accounting, as prescribed by the Contracting Officer, of all government property which had come into the possession or custody of the Contractor under this contract.

(e) *Protection of government property—management of high-risk property and classified materials.* (1) The Contractor shall take all reasonable precautions, and such other actions as may be directed by the Contracting Officer, or in the absence of such direction, in accordance with sound business practice, to safeguard and protect government property in the Contractor's possession or custody.

(2) In addition, the Contractor shall ensure that adequate safeguards are in place, and adhered to, for the handling, control and disposition of high-risk property and classified materials throughout the life cycle of the property and materials consistent with the policies, practices and procedures for property management contained in the Federal Property Management Regulations (41 CFR chapter 101), the Department of Energy (DOE) Property Management Regulations (41 CFR chapter 109), and other applicable Regulations.

(3) High-risk property is property, the loss, destruction, damage to, or the unintended or premature transfer of which could pose risks to the public, the environment, or the national security interests of the United States. High-risk property includes proliferation sensitive, nuclear related dual use, export controlled, chemically or radioactively contaminated, hazardous, and specially designed and prepared property, including property on the militarily critical technologies list.

(f) *Risk of loss of Government property.* (1)(i) The Contractor shall not be liable for the loss or destruction of, or damage to, Government property unless such loss, destruction, or damage was caused by any of the following—

(A) Willful misconduct or lack of good faith on the part of the Contractor's managerial personnel;

(B) Failure of the Contractor's managerial personnel to take all reasonable steps to comply with any appropriate written direction of the Contracting Officer to safeguard such property under paragraph (e) of this clause; or

(C) Failure of contractor managerial personnel to establish, administer, or properly maintain an approved property management system in accordance with paragraph (i)(1) of this clause.

(ii) If, after an initial review of the facts, the Contracting Officer informs the Contractor that there is reason to believe that the loss, destruction of, or damage to the government property results from conduct falling within one of the categories set forth above, the burden of proof shall be upon the Contractor to show that the Contractor should not be required to compensate the government for the loss, destruction, or damage.

(2) In the event that the Contractor is determined liable for the loss, destruction or damage to Government property in accordance with (f)(1) of this clause, the Contractor's compensation to the Government shall be determined as follows:

(i) For damaged property, the compensation shall be the cost of repairing such damaged property, plus any costs incurred for temporary replacement of the damaged property. However, the value of repair costs shall not exceed the fair market value of the damaged property. If a fair market value of the property does not exist, the Contracting Officer shall determine the value of such property, consistent with all relevant facts and circumstances.

(ii) For destroyed or lost property, the compensation shall be the fair market value of such property at the time of such loss or destruction, plus any costs incurred for temporary replacement and costs associated with the disposition of destroyed property. If a fair market value of the property does not exist, the Contracting Officer shall determine the value of such property, consistent with all relevant facts and circumstances.

(3) The portion of the cost of insurance obtained by the Contractor that is allocable to coverage of risks of loss referred to in paragraph (f)(1) of this clause is not allowable.

(g) *Steps to be taken in event of loss.* In the event of any damage, destruction, or loss to Government property in the possession or custody of the Contractor with a value above the threshold set out in the Contractor's approved property management system, the Contractor —

(1) Shall immediately inform the Contracting Officer of the occasion and extent thereof,

(2) Shall take all reasonable steps to protect the property remaining, and

(3) Shall repair or replace the damaged, destroyed, or lost property in accordance with the written direction of the Contracting Officer. The Contractor shall take no action

prejudicial to the right of the Government to recover therefore, and shall furnish to the Government, on request, all reasonable assistance in obtaining recovery.

(h) *Government property for Government use only.* Government property shall be used only for the performance of this contract.

(i) *Property Management* —(1) *Property Management System.* (i) The Contractor shall establish, administer, and properly maintain an approved property management system of accounting for and control, utilization, maintenance, repair, protection, preservation, and disposition of Government property in its possession under the contract. The Contractor's property management system shall be submitted to the Contracting Officer for approval and shall be maintained and administered in accordance with sound business practice, applicable Federal Property Management Regulations and Department of Energy Property Management Regulations, and such directives or instructions which the Contracting Officer may from time to time prescribe.

(ii) In order for a property management system to be approved, it must provide for—

(A) Comprehensive coverage of property from the requirement identification, through its life cycle, to final disposition;

(B) [Reserved]

(C) Full integration with the Contractor's other administrative and financial systems; and

(D) A method for continuously improving property management practices through the identification of best practices established by “best in class” performers.

(iii) Approval of the Contractor's property management system shall be contingent upon the completion of the baseline inventory as provided in subparagraph (i)(2) of this clause.

(2) *Property Inventory.* (i) Unless otherwise directed by the Contracting Officer, the Contractor shall within six months after execution of the contract provide a baseline inventory covering all items of Government property.

(ii) If the Contractor is succeeding another contractor in the performance of this contract, the Contractor shall conduct a joint reconciliation of the property inventory with the predecessor contractor. The Contractor agrees to participate in a joint reconciliation of the property inventory at the completion of this contract. This information will be used to provide a baseline for the succeeding contract as well as information for closeout of the predecessor contract.

(j) The term “contractor's managerial personnel” as used in this clause means the Contractor's directors, officers and any of its managers, superintendents, or other equivalent representatives who have supervision or direction of all or substantially all of—

(1) The Contractor's business; or

(2) The Contractor's operations at any one facility or separate location at which this contract is being performed; or

(3) The Contractor's Government property system and/or a Major System Acquisition or Major Project as defined in DOE Order 4700.1 (Version in effect on effective date of contract).

(k) The Contractor shall include this clause in all cost reimbursable subcontracts.

(End of clause)

PART III

List of Documents, Exhibits and Other Attachments

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APPENDIX A

ADVANCE UNDERSTANDINGS ON HUMAN RESOURCES

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

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Appendix A

FERMI NATIONAL ACCELERATOR LABORATORY

ADVANCE UNDERSTANDINGS ON HUMAN RESOURCES

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SECTION I – INTRODUCTION

(a) This Advance Understanding is intended to document the principles and measures for evaluation of the Contractor's Human Resources Management (CHRM) programs and other items of allowable personnel costs and related expenses not specifically addressed elsewhere under this contract.

(b) The Contractor shall select, manage, and direct its work force and apply its human resource policies in general conformity with its private operations and/or industrial practices insofar as they are consistent with this Contract. Any changes to the personnel policies or practices in place as of the effective date of this contract which would increase costs, is subject to approval in advance by the Contracting Officer. Any programs or policies initiated for corporate application, permanently or for a finite period, that will impact staffing levels or compensation costs (i.e., furloughs or salary cuts) will not be applicable to Laboratory employees or employees otherwise funded through this contract, without prior approval of the Contracting Officer.

(c) The Laboratory's programs will comply with the Federal Acquisition Regulation (FAR) cost principles and FAR contract clauses, as supplemented by the Department of Energy Acquisition Regulation (DEAR), for all Human Resources programs. The Contractor shall use effective management review procedures and internal controls to assure compliance with the FAR and DEAR as well as to ensure that the cost limitation set forth herein are not exceeded, and that areas which require prior approval of the DOE Contracting Officer or designated representative are reviewed and approved prior to incurrence of costs.

(d) This Appendix A may be modified from time to time by agreement of the Parties. Either Party may, at any time, request that this Appendix A be revised, and the Parties hereto agree to negotiate in good faith concerning any requested revision. Revisions to this Appendix A shall be accomplished by executing modification to the prime contract.

(e) The Laboratory Director may make exceptions to the provisions of Appendix A when such exceptions are in the best interest of contract operations or will facilitate or enhance contract performance and are approved in advance by the Contracting Officer.

(f) The Contractor, or designated representative, shall promptly furnish all reports and information required or otherwise indicated in this Advance Understanding to the Contracting Officer. The Contractor recognizes that the Contracting Officer or designated representative may make other data requests from time to time and the Contractor agrees to cooperate in meeting requests.

(g) It is understood that no provision of this Appendix can affect any right guaranteed to a bargaining unit employee by the terms of a Collective Bargaining Agreement.

SECTION II – HUMAN RESOURCES STRATEGY, BUSINESS PLANNING AND PERFORMANCE MANAGEMENT

The Laboratory Business Plan highlights areas important to DOE and aligns with critical contract vision components. The HR Strategic Plan, which is subordinate to the Laboratory Strategic Plan, will be reviewed with DOE representatives at least annually. Contract performance metrics and measures will be developed in partnership with DOE and are detailed in the Appendix B. A Balanced Scorecard (BSC) approach will be utilized as the principal means for annually assessing the performance of the contractor human resources function.

CHRM performance objectives and targets will align with, and facilitate the achievement of the Laboratory mission; be limited in number; focus on strategic results, systems-based measures, and assessment against industry best practices; be developed annually and mutually agreed upon by the Contractor and DOE in accordance with Appendix B and the BSC process; be reviewed periodically to target key strategic objectives and results; and include outcomes that result in cost effective management of laboratory human resources to support accomplishment of DOE and FNAL mission, strategy and objectives.

SECTION III – COMPENSATION

(a) Salary Increases.

(1) Any combination of salary increases for an individual in a single Compensation Increase Plan (CIP)/fiscal year, including merit increases and those resulting from reclassification and promotion, which result in a salary that is 25% greater than the employee's salary prior to the increase shall require prior approval by the Laboratory Director (or designee). Salary increases that exceed 15% shall be reported to the Contracting Officer by November 15th.

(2) An administrative stipend may be paid to an employee who is temporarily assigned responsibilities of a higher level position or other significant duties not part of the employee's regular position. The sum of stipend and base salary shall not exceed the maximum salary of the higher level position. The Laboratory Director or designee may authorize an administrative stipend up to 15% of an appointee's annual base salary for a period not to exceed one year. Thereafter, extension of all stipends shall be reviewed by the Laboratory Director (or designee) on an annual basis and may be authorized as necessary and appropriate. All stipends shall be reported annually to the Contracting Officer by November 15th.

(3) Notwithstanding any other term or condition set forth in this Contract, the

Contracting Officer's approval of compensation actions pursuant to H.21 will consider:

A. relative alignment of proposed salaries with subordinate levels;

B. available market data, comparing total-cash compensation;

C. total compensation relative to the Executive Compensation Benchmark Amount established periodically by the Office of Federal Procurement Policy (OFPP).

(b) Compensation Increase Plan (CIP)

(1) The Contractor shall submit the CIP proposal by August 1 of each year.

Annual funding for promotions and adjustments up to 1.0% of the salary shall be allowable. The Contractor shall request approval from the Contracting Officer for additional authorization. Approval of such requests will be based upon actual use for the prior year and anticipated future use pro-rated for annual growth in staff and other factors such as re-classification, internal equity, and other pertinent facts that justify the need for the additional authorization.

(2) In order to pay "on-market-on-average," in the calculation of market position, Laboratory salary data shall be matched to survey data as of April 1, the midpoint of the fiscal year.

(3) The CIP shall be expressed as a percentage of the projected September 30th reimbursed salary base payroll.

(4) The Contractor is authorized a Promotion/Adjustment fund of up to 1% of base reimbursed payroll. Additional funding for promotions/adjustments shall be included in the Compensation Increase Plan (CIP) request as a discrete line item.

(c) Payment of Joint Appointees.

Joint Appointees shall be paid at the salary and fringe benefit rates established by the home institution, for the percentage of time worked at the host institution.

SECTION IV – ANCILLARY PAY

(a) Shift Premiums

(1) The Contractor may pay to nonexempt employees a shift premium of 7% of hourly rate when one-half or more of their shift falls between 6:00 p.m. and 12 midnight.

(2) A shift premium of 10% of hourly rate may be paid to employees who are scheduled to work a shift in which one-half or more of the regular hours of work fall between 12 midnight and 6:00 a.m.

(3) The Contractor may pay a shift premium of one hundred dollars ($100) per month to staff persons regularly assigned to evening and night operations for the purpose of supervising off shift activities or providing technical management. Evening operations are defined as those where half or more of the scheduled shift hours fall between 6:00 p.m. and 6:00 a.m.

(b) Twelve Hour Shift Provisions

Employees assigned to a 12-hour shift schedule will be covered by regular Laboratory policy, with the following exceptions:

(1) For work on any scheduled day in the workweek, hours worked after 8 will be paid at time and one-half (1-1/2). For work on any nonscheduled day in the workweek, an employee will receive one and one-half (1-1/2) times base rate.

(2) No shift premium will be paid employees for all hours worked when assigned as a permanent member of a 12-hour shift.

(3) Vacation and sick leave will be charged and paid for at the employee's straight time rate.

(c) Overtime

If a nonexempt employee at the direction of the Contractor performs emergency work or performs work on either of his/her scheduled days off and the overtime payment for such work amounts to less than four (4) hours pay at his/her regular base rate, the employee may be paid four (4) hours pay at this regular base rate (plus shift premium, if any) as full compensation for such work.

(d) Special Allowances

(1) Reporting Allowances.

A nonexempt employee who reports for scheduled work at the direction of the Contractor and who is prevented from working all or part of such scheduled work by conditions beyond his/her control, may be paid a reporting allowance up to the amount he/she would have received if such scheduled work had been performed.

(2) Uniform Allowance for Fire and Security Officers

The Contractor may pay a uniform allowance to the exempt fire and security officers. The allowance will be made in lieu of certain uniform items being furnished and maintained by the Contractor. Each individual will be responsible for fitting, obtaining, and maintenance of required uniform items on his/her own time.

(e) Medical evacuation services/insurance.
Employees required to perform official travel to foreign countries where local care is substandard (according to U.S. standards) may have coverage that pays for evacuation services to an acceptable medical facility in a proximal location on an urgent or emergency basis. The policy shall cover evacuation, expatriation of remains, and ancillary costs associated with the incident. Costs for such coverage for eligible employees are allowable.

(f) Temporary Assignment Allowances (Domestic and/or Foreign)
Will require advanced approval by the Contracting Officer.

SECTION V – PAYMENTS ON TERMINATION OF EMPLOYMENT

(a) Sick leave. Accumulated sick leave is not payable upon termination and may not be used beyond a predetermined date of termination.

(b) Vacation. Accumulated vacation is payable at termination at the rate in effect as of the date of termination, including any shift differential.

SECTION VI – LABOR RELATIONS

(a) Collective Bargaining.

Costs of fringe benefits and wages paid to employees under collective bargaining agreements are allowable. All other reasonable costs and expenses, such as expenses relating to the grievance process, arbitration and arbitration awards, and other costs and expenses incurred pursuant to applicable collective bargaining agreements and revisions thereto, are also allowable.

(b) Collective Bargaining Agreements.
The Contractor shall provide copies of collective bargaining agreements to the Contracting Officer as they are ratified or modified.

(c) Bargaining Unit Activity.
Pay for absences from work by employees acting in the capacity of union officers, union stewards and committee members for time spent in handling grievances, negotiating with the Laboratory, and serving on labor management (Laboratory) committees, are allowable.

SECTION VII – SETTLEMENT COSTS

(a) Settlement Costs - The Contractor is authorized to resolve settlements of claims up to $25,000 without the advance approval of the Contracting Officer. Worker's Compensation settlement claims shall be handled in accordance with H. 24

SECTION VIII – PROGRAMS INVOLVING EMPLOYEE ABSENCE FROM THE WORKPLACE

(a) Paid Leave.

The Laboratory will provide a reasonable and cost effective paid leave program. Paid leave includes vacation, holiday, sick, jury, bereavement, military, voting and personal leave according to approved Laboratory schedules. Only leave accruals included in the annual benefit value study shall be allowable.

(b) Occupational Disability Leave.

The Contractor may pay occupational disability leave as a supplement to any payments under Workers' Compensation or Occupational Disease Statutes. For Non-Exempt employees, the total received will equal what the employee would have

received at his/her basic hourly rate for scheduled work time aggregating not in excess of seven hundred twenty (720) hours for each disability. For Exempt employees, the total received will equal what the employee would normally have received, for such period of time as in the judgment of the Contractor is deemed advisable, though not in excess of six (6) calendar months in any one (1) calendar year or for any one period of disability, or in excess of the total time actually worked prior to the time at which the leave is granted.

(c) Military Leave.

Military leave and associated pay is authorized in accordance with Contractor policies and/or State or Federal law.

(d) Security Leave.

Wages or salaries paid to employees when access authorization is suspended by DOE will be allowable costs under the following conditions:

If a position which does not require access authorization is not available, the Laboratory Director or designee may place the employee on leave with pay at his or her base compensation until final disposition of the case. Leave with pay requires the Contracting Officer's concurrence that no position is available to which the employee might reasonably be transferred.

(e) Leave for Professional Advancement

A leave of absence may be granted, by the Director, to a professional staff member when, in the opinion of the Directorate, such a leave would be to the advantage of the Contractor. For the purpose of the application of these leave of absence practices, a professional staff member is typically defined to be a scientist, an engineer or a person with major administrative responsibility. The types of leave which may be granted include assignment to other institutions for teaching, for research and for otherwise furthering professional capability. Such leaves may coincide with a fellowship or other similar award.

SECTION IX - EMPLOYEE TRAINING, EDUCATION AND DEVELOPMENT

(a) The Laboratory Director or designee shall send an annual report to the Contracting Officer providing the number of employees participating in training, education and development programs and the dollars spent.

(b) The Laboratory shall establish training, education and development programs that are consistent with DOE requirements and guidance, industry standards, and other Federal, State and local regulations. These programs shall ensure that employees are well-qualified and competent to manage facilities and meet

mission requirements through administrative, professional and technical excellence.

(1) Training.

The Laboratory may permit selected employees to attend training classes while receiving full pay in order to enable them to acquire the needed skills to qualify them for more responsible jobs and maintain competence in their fields

(2) Education

The Contractor may reimburse an employee for the cost of tuition, fees, text books, and like expenses upon successful completion of a formal course and/or a course leading to an earned academic degree which the Contractor approves as pertinent to the employee's Contractor career or to work of the Contractor or who with Contractor approval, successfully completes a vocational training course approved by the Contractor. The Contractor will not duplicate payments for educational expenses supported by sources outside the contract including but not limited to Veteran's benefits payable for education, scholarships, and tuition discounts. The Contractor may prepay allowable education expenses when deemed appropriate.

(3) Development.

The Contractor shall be reimbursed for the cost of development programs, including but not limited to, apprenticeship training, supervisory training, management development, career updating and redirection, and work-study and other programs supporting the development of staff in fields of interest to the Laboratory.

(c) The Contractor may pay appropriate fees to Contractor employees who conduct classes for Contractor employees. Such fees will not exceed fifty dollars ($50) per class hour of instruction. Payment is limited to courses provided under Contractor training programs and requiring outside preparation and not considered a normal part of the recipient's job assignment.

(d) The Contractor may sponsor undergraduate and graduate fellowship programs for students representing underutilized groups in technical employment fields normally sought through the Contractor's recruiting program. Students in the program will be employed by the Contractor during the summer and will be on leave of absence during the school year. A fellowship will be paid for the leave of absence, which will supplement any university financial support, if any, up to a predetermined maximum amount.

SECTION X – EMPLOYEE PROGRAMS

(a) Employee Performance Recognition Award Program.

The Contractor may recognize employees or groups of employees who have distinguished themselves by their significant contributions and outstanding performance in the course of their work. Awards may be provided to employees or groups of employees in the form of cash. Additionally, noteworthy achievements and special efforts may be recognized by the presentation of plaques, certificates, and memorabilia.

Two recognition options include but are not restricted to:

The Employee Performance Recognition award (EPRA), which is intended to acknowledge individuals or groups for significant contributions, e.g., advancements in science which are reviewed by subject Matter Experts selected by the Laboratory Director. EPRA increases which exceed the larger of $10,000 or 15% of the awardee's base salary require the prior written approval of DOE.
The Rewards and Recognition (R&R) Program, which is intended to provide immediate recognition for accomplishments above and beyond the individual's job expectations, e.g., assuming additional duties during staffing shortages, assisting with special projects etc. Typically these awards range between $100 and $1,000 per employee, depending on the nature of the contribution.

An award pool of 0.15% of the October 1 base payroll is authorized for costs under this Program. The Contractor shall submit to DOE an annual report of the utilization and costs of this program by November 15th of each year.

(b) Employee Communications. The costs incurred in the publication, printing and distribution of a newsletter, handbooks and other employee communication media designed to effectuate better employee relations and understanding of Appendix A and current employment regulations shall be reimbursed and performed in a cost effective manner.

(c) Service Awards

Service awards not to exceed an average cost of one hundred and seventy dollars ($170) are authorized for employees who complete five, ten, fifteen, twenty, twenty five, thirty, thirty-five, forty, forty-five, and fifty years of service. Employees who retire prior to award ceremonies are eligible to receive the respective award.

(d) Patent and Copyright Awards

An employee may be awarded a payment in accordance with the following schedule of activities and participants in the project:

	NUMBER OF INVENTORS			
Event	1	2	3	4 or More
Record of Invention (hardware or software)	$100	$ 75	$ 50	$ 25
Award of Patent	$500	$350	$250	$ 150
Software Registration	$250	$175	$125	$ 75

The Contractor may provide each inventor with a plaque signifying the issuance of a United States patent.

(e) Other Awards

An employee may be awarded a payment for an idea submitted and adopted by the Contractor in accordance with policies established by the Contractor and approved by the Contracting Officer. The determination of awards requires the Laboratory Director's approval. A report of each such award will be submitted to the Contracting Officer.

(f) Recreation and Morale Benefits

The Contractor may develop, administer and support a variety of employee programs. These programs may include athletic, cultural, and family activities. Participant fees may be collected to partially offset the cost of some or all of these activities. Appropriate facilities, utilities, and maintenance may be provided by the Laboratory.

(g) Health and Wellness.

(1) Cost of Health Services. The Contractor shall be reimbursed for the costs of operating the Health Division for Laboratory employees and directly reimbursed for the cost of health services for DOE site employees, including but not limited to the following: Pre-employment physicals and other medical examinations required to meet Laboratory employment requirements, operation of a health unit which provides medical care and monitoring of occupational injuries and to provide minor relief for minor physical complaints of employees while at the Laboratory and health examinations provided as a health service for employees.

(2) Wellness program. Costs of a Wellness Program to promote employee health and fitness are allowable. This program shall be limited to activities related to stress management, smoking cessation, exercise, nutrition, and weight loss.

(h) Employee Assistance Program

The Contractor shall (1) maintain a program of preventive services, education, short-term counseling, coordination with and referrals to outside agencies, and follow-up upon return to work that conforms to the requirements of 10 CFR 707.6, Employee Assistance, Education, and Training; (2) submit for approval by the Contracting Officer any changes to the employee assistance program implementation plan; (3) prepare and submit information to DOE concerning Employee Assistance Program services as requested by the Contracting Officer. Such reports shall not include individual identifiers.

(i) Other

(1) The Contractor may develop, administer and support a variety of employee programs. These programs may include athletic, cultural, and family activities. Participant fees may be collected to partially offset the cost of some or all of these activities. Appropriate facilities, utilities, and maintenance may be provided by the Laboratory. Entertainment costs, including costs of amusement, diversions, and social activities are

(2) Employee Communications. The costs incurred in the publication, printing and distribution of a newsletter, handbooks and other employee communication media designed to effectuate better employee relations and understanding of Appendix A and current employment regulations shall be reimbursed and managed in a cost effective manner.

SECTION XI – COSTS OF RECRUITING PERSONNEL

(a) The Contractor may incur costs for the recruitment of personnel, as follows:

(1) Costs of advertising and agency and consultant fees.

(2) Recruiting Expenses

(A) The Laboratory may reimburse consistent with other provisions of this contract, employees traveling for recruiting purposes the actual cost incurred for the following expenses: transportation, lodging, and meals for prospective employees and, when approved, for spouses or representatives of academic institutions, professional societies and

other scientific organizations and incidental expenses incurred in recruiting.

(B) New or prospective employees who have been offered and have accepted a position, and who are required to take a pre-placement physical examination, shall be reimbursed for costs of the physical examination.

(C) Costs associated with pre-employment screening shall be allowable.

(3) Recruitment/Retention Tools.

(A) The Contractor may pay a sign-on bonus to recruit employees with critical skills. All sign-on bonuses shall be reported annually to the Contracting Officer by November 15th of each year.

(B) An annual retention bonus is authorized to retain employees with critical skills or whose expertise is critical to the completion of a specific project. All annual retention bonuses shall be reported annually to the Contracting Officer by November 15th of each year.

(C) The Contractor is authorized to provide service credit to critical skill new-hires for previous relevant experience at another DOE facility or external organization. An annual usage report shall be provided to the Contracting Officer by November 15th of each year.

(b) Physics Program Appointments

The Contractor may offer temporary guest appointments to Physicists for work as required for the Contractor in the High Energy Physics Program. Appointees may be reimbursed as follows:

(1) Appointee may elect home institution fringe benefit coverage.

(2) Payment of costs for transportation of appointee and family in accordance with FAR 31.205-46 supplemented by DEAR 970.3102-05-46 and Clause H.4.I.(d).

(3) If an appointee retains, with the approval of the Contractor, his/her established residence void of rental or other income, he/she may be reimbursed for the cost of equivalent and reasonable housing for himself/herself and family for the term of the appointment.

(4) If an appointee rents or obtains other income from his/her established residence, he/she may be reimbursed for the cost of the difference in

equivalent and reasonable housing for himself/herself and family for the term of the appointment.

In the event the appointee becomes a regular employee, he/she will be entitled to reimbursement for relocation expenses in accordance with FAR 31.205-35, Relocation Costs.

SECTION XII - REDUCTIONS IN CONTRACTOR EMPLOYMENT

Reductions in employment will be conducted in accordance with the contractor's personnel management policies and practices and in accordance with applicable Departmental guidance on workforce restructuring, as revised from time to time.

(a) Workforce Restructuring Actions

(1) The Contractor will notify or request approval of workforce restructuring actions in accordance with the following:

RESTRUCTURING ACTION	#EMPLOYEES POTENTIALLY IMPACTED	ACTION REQUIRED
Voluntary	50-99	CO Notification
Voluntary	100+	CO Approval
Involuntary	50+	CO Approval

(A) Notifications will include a business case outlining the drivers necessitating restructuring activity, an implementation strategy and communication plan.

(B) Actions requiring approval will additionally require a workforce restructuring plan prepared in accordance with DOE policy.

(C) Notifications and Approval actions shall be submitted a minimum of 10 business days prior to announcement to employees.

(D) Waivers or self-select forms that vary from those provided in DOE policy documents are subject to approval by DOE.

(2) Any employee who volunteers for layoff or retirement during a time period in which the Contractor has a DOE approved or Contractor Management approved active reduction in force plan or action will be eligible for severance pay provided the termination is accepted by Laboratory management and results in the retention of an employee who otherwise would have been laid off. Severance pay not associated with workforce restructuring is unallowable.

(3) Severance pay benefit. As approved by the Contracting Officer or Contractor Management approved active reduction in force plan or action, the following costs are allowable:

NON-EXEMPT SEVERANCE SCHEDULE

Less than 1 year	2 weeks
1 years to 5 years	3 weeks
5 years to 10 years	5 weeks
10 years to 15 years	7 weeks
15 years to 20 years	9 weeks
20 years to 25 years	11 weeks
25+ years	13 weeks

EXEMPT SEVERANCE SCHEDULE

Less than 1 year	1 month
1 year to 5 years	2 months
5 years to 10 years	3 months
10 years to 15 years	4 months
15 years to 20 years	5 months
20 years to 30 years	6 months
30+ years	7 months

(4) Pay in lieu of notice. Any employee who is involuntarily separated due to a workforce restructuring action may be given pay in lieu of the required minimum written notice of termination. Accumulated vacation credit is also paid.

(5) The Contractor, to the extent practicable, shall provide outplacement services in the forms of skills assessment and resume preparation to those employees who are involuntarily separated due to a layoff.

(b) Displaced Worker Medical Benefit

Contractor employees who separate from employment voluntarily or involuntarily (other than for cause) and who were eligible for medical insurance coverage under the contractor's plan at the time of separation from employment are eligible for medical coverage under the DOE Displaced Workers' Medical Benefits Program, provided they are not eligible for coverage under another plan, e.g., another

employer's group health plan, the contractor's Retiree Medical Plan, a spouse's medical plan, or Medicare, based on the following schedule:

(1) First Year: The Contractor's contribution for an active employee

(2) Second Year: One half of the Contractor's Cobra premium

(3) Third and subsequent years: Reasonable administrative costs that exceed the two percent administrative fee paid by the displaced worker.

SECTION XIII – EMPLOYEE BENEFITS

(a) Travel Insurance

The Contractor provides travel accident insurance to all Laboratory employees and certain others, when they are traveling on Contractor business, at no cost to the traveler. All employees have coverage equal to five times the basic annual salary up to a maximum of $300,000.

(b) Medical Evacuation Services/Insurance

Employees required to perform official travel to foreign countries where local care is substandard (according to U.S. standards) may have coverage that pays for evacuation services to an acceptable medical facility in a proximal location on an urgent or emergency basis. The policy shall cover evacuation, expatriation of remains, and ancillary costs associated with the incident. Costs for such coverage for eligible employees are allowable.

(c) Dependent Care

The Laboratory is authorized to provide a dependent care benefit program consistent with the written directions of the Contracting Officer.

The Contractor shall subcontract the operation of the dependent care center, unless otherwise approved by the Contracting Officer. Support costs for labor, materials, and supplies expended for the operation of a dependent care facility shall not be allowable under any circumstances unless the facility is for the exclusive use of DOE and Laboratory employees and except for any expense items such as utilities, maintenance, food, medical services, or supplies already used in support of site operations and readily available.

(d) Energy Employees' Occupational Illness Compensation Program Act (EEOICPA)

The Laboratory agrees to comply with requests for information, records, and other program requirements to ensure the orderly administration and adjudication of claims under the EEOICPA.

SECTION XIV - SPECIAL PROFESSIONAL SERVICES

(a) The Contractor may pay fees or honoraria to persons, other than full-time employees of another DOE Contractor, who deliver lectures, conduct scientific or engineering courses or symposia, or perform similar professional services for the Contractor. The fee per day of services shall not exceed four hundred dollars ($400) and shall be based upon the individual's professional standing, the value of his/her services, the degree of inconvenience to the individual, amount of time devoted to the service, and other relevant factors. In the case of persons from nearby institutions or organizations, the fee may include an amount in lieu of reasonable expenses. In other cases, travel expenses, in accordance with FAR 31.205-46 supplemented by DEAR 970-3102-05-46 and Clause H.4, may be reimbursed separately from the fee.

(b) The Contractor may pay a fee of five hundred ($500) per day to each member of the Fermilab Physics Advisory Committee for work done in connection with their committee assignment. The person serving as chairperson of the committee may be paid at a rate of seven hundred fifty ($750) per day. Excepted from this provision are those committee members who are full time employees of another DOE Contractor. Travel expenses will be reimbursed in accordance with FAR 31.205-46 supplemented by DEAR 970-3102-05-46 and Clause H.4 in addition to the fee.

ATTACHMENT J.10

APPENDIX J

TREATIES AND INTERNATIONAL AGREEMENTS/WAIVED INVENTIONS

Applicable to the Operation of Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

United States Department of Energy
Agreement Listing

Expiration Date	DOE Office	Title
1-6-97; exec 1-6-92	PO	Agreement relating to scientific and technical cooperation between the Government of the United States of America and the Government of the Republic of Korea.
7-6-99; exec 7-6-94	IA and Department of State	Agreement between the Government of the United States of America and the Government of Estonia on science and technology cooperation.
7-6-99; exec 7-6-94	IA and Department of State	Agreement between the Government of the United States of America and the Government of Latvia on science and technology cooperation.
7-6-99; exec 7-6-94	IA and Department of State	Agreement between the Government of the United States of America and the Government of the Republic of Lithuania on science and technology cooperation.
		Arrangement for the Exchange of Technical Information and for Cooperation in the Field of Peaceful uses of nuclear energy between the Atomic Energy Office for Peace and the U.S. National Laboratory.
Exec 1-15-92		Agreement between the Government of the Republic of Indonesia and the Government of the United States of America for cooperation in scientific research and technology development.
Exec 6-14-96		Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a cooperative laboratory relationship.
Exec 12-11-96		Agreement between the Department of Energy and the Nuclear Power Engineering Corporation of Japan for cooperation in the field of research and development of light water reactor-associated technologies.

Listing of Agreements Under the Aegis of: IAEA

Exp Date	DOE Office	Agreement #	Title
7/20/98	ER	000233	Agreement among the European Atomic Energy Community, Japan, Russia and the United States on Cooperation in the Engineering Design Activities of the International Thermonuclear Experimental Reactor (ITER)

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: *Argentina*

61	407	8/1/1996	8/1/2001	Primary DOE		None		Energy Research and Development	Energy Technology Cooperation

Title: ***Specific Arrangement between the Department of Energy of the United States of America and the Public Works and Services Secretariat of the Argentine Republic in the Area of Energy Technology Cooperation***

Comment: Energy Forecasting meeting was hosted by FE in Oct. of 97. Seminar on New Technologies for the Energy Sector was held in Buenos Aires in Dec 98. EERE has work on energy efficiency and renewable projects started under a statement of intent which was a precursor to this agreement. In Dec of 97 four priority areas of work were identified - energy efficiency, energy and environment, energy planning, and renewable energy by then Secretaries of Energy.

62	409	10/16/199	10/16/200	Primary DOE		None		Arms Control and Nonproliferation	Nuclear Technologies

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the National Atomic Energy Commission of the Argentine Republic for Technical Exchange and Cooperation in the area of Peaceful Uses of Nuclear Energy***

Comment: Expanded sister lab arrangement supporting Article IV of the NPT. Existing annexes cover work in Molybdenum-99 production for LEU, boron neutron capture therapy, decontamination and decommissioning, and LEU advanced fuels.

475	431	4/13/1998	10/16/200	Secondary DOE		62	Primary DOE	Arms Control and Nonproliferation	Annex 1 - LEU Moly-99 production

Title: ***Project Annex 1 Cooperation in the Field of Molybdenum-99 Production from Low-Enriched Uranium***

Comment: In force as long as the Implementing Arrangement. Action sheets are under development.

521	431	2/8/1999	2/8/2003	Tertiary DOE		475	Secondary DOE	Nuclear Energy	Action Sheet 1 - Project Annex 1

Title: ***Action Sheet 1 pursuant to Project Annex 1 for Cooperation in the Field of Molybdenum-99 Production for Low-Enriched Uranium between the National Atomic Energy Commission of he Argentine Republic and the University of Chicago, as Operator of Argonne National Laboratory***

Comment:

476	431	4/13/1998	10/16/200	Intergovernmental		62	Primary DOE	Arms Control and Nonproliferation	Annex 2 - Boron Neutron Capture Therapy

Title: ***Project Annex 2 Cooperation in the Area of Boron Neutron Capture Therapy***

Comment: In force as long as the Implementing Arrangement. Expert visits are underway.

503	431	8/11/1998		Tertiary DOE		476	Secondary DOE	Arms Control and Nonproliferation	Action Sheet 1

Title: ***Action Sheet 1 Purusant to Project Annex 2 Cooperation in the Field of Boron Neutron Capture Theraphy***

Comment: Technical exchange visits.

Thursday, July 17, 2003

All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
477	431	4/13/1998	10/16/200	Secondary DOE		62	Primary DOE	Arms Control and Nonproliferation	Annex 3 - D&D of Nuclear Facilities

Title: ***Project Annex 3 Cooperation in the Field of Decontamination and Decommissioning of Nuclear Facilities***

Comment: In force as long as the Implementing Arrangement. Workshop was successfully held in fall of 98 at ANL.

496	431	8/18/1998	10/16/200	Secondary DOE		62	Primary DOE	Arms Control and Nonproliferation	Annex 4 - Advanced Fuels

Title: ***Project Annex 4 Cooperation in Field of Low Enriched Uranium Advanced Fuels***

Comment: Remains in force as long as the Implement Arrangement. Action sheets are under development.

555	431	2/8/1999	2/8/2003	Tertiary DOE		496	Secondary DOE	Arms Control and Nonproliferation	Action Sheet 1 Annex 4, Dart Code Development

Title: ***Action Sheet I Pursuant to Project Annex 4 for Cooperation in the Field of Low Enriched Uranium Advanced Fuels between the National Atomic Energy Commission of the Argentine Republic (CNEA) and the University of Chicago, as Operator of Argonne National Laboratory***

Comment:

63	331	4/18/1994	4/18/2004	Primary DOE			None	Arms Control and Nonproliferation	International Safeguards Applications

Title: ***Agreement between the United States Department of Energy and the National Atomic Energy Commission of Argentina Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, Physical Protection, and Advanced Containment and Surveillance Technology for International Safeguards Applications***

Comment: Cooperate in research, development, testing, and evaluation of technology, equipment and procedures in order to improve nuclear material control, accountancy, verification, physical protection and advanced containment and surveillance technologies for international safeguards applications.

64	387	5/29/1996	5/29/2006	Primary DOE			None	Environmental Restoration and Waste Management	Radioactive and Mixed Waste Management

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the National Atomic Energy Commission of the Argentine Republic for Technical Exchange and Cooperation in the Area of Radioactive and Mixed Waste Management***

Comment: Study radioactive and mixed waste management activities in such areas as: preparation and packaging; decontamination and decommissioning; surface and subsurface storage; characterization of geologic formations; disposal in geologic formations, etc.

Country: ***Australia***

509	456	9/15/1998	9/14/2008	Primary DOE			None	Arms Control and Nonproliferation	Safeguards Arrangement

Title: ***Arrangement between the United States Department of Energy and the Australian Safeguards and Nonproliferation Office Concerning Research and Development in Nuclear material Control Accountancy, Verification, Physical Protection, Advance Containment and Surveillance Technologies for International Safeguards***

Comment:

Country: ***Austria***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
65	337	9/18/1994		Primary DOE			None	Energy Efficiency and Renewable Energy	EE/Conservation and Climate Change

Title: ***Memorandum of Understanding on Cooperation in Environmental Aspects of Energy Policy and the Protection of Global Climate***

Comment: Cooperate in areas of sufficient growth of energy supplies; energy efficiency and conservation measures and protection of the biosphere (climate change).

Country: ***Bangladesh***

501	450	12/15/199		Statement of Intent			None	Energy Research and Development	SOI in Enregy Cooperation

Title: ***Joint Statement of Cooperation in Energy***

Comment:

514	460	2/11/1999	2/11/2004	Primary DOE			None	Information and/or Personnel Exchange	Exchange of Energy Information

Title: ***Arrangement between the Department of Energy of the United States of America and the Ministry of Energy and Mineral Resources, Government of the People's Republic of Bangladesh for Exchange of Energy Information***

Comment: EIA will work with an agency designated by MEOMR to establish a reasonably balanced exchange of energy information.

Country: ***Botswana***

600	495	12/15/200		Statement of Intent			None	Fossil Energy	Cooperation in the Field of Fossil Energy

Title: ***Statement of Intent Between The Department of Energy of the United States of America and The Ministry of Minerals, Energy and Water Afairs of the Republic of Botswana for Cooperation in the Field of Fossil Energy Technology***

Comment:

Country: ***Brazil***

26	391	9/30/1996		Statement of Intent			None	Fossil Energy	Clean Coal Technologies

Title: ***Joint Statement of Intent on Clean Coal Technologies between the Department of Energy of the United States of America and the State of Rio Grande do Sul and the State of Santa Catarina, and the Sindicato Nacional da Industria da Extracao do Carvao, Eletrabras, and the Ministry of Mines and Energy of the Federal Republic of Brazil***

Comment: Intention to cooperate between DOE, the State of Rio Grande do Sul, the State of Santa Catarina, The Sindicato National da Industria da Extracao do Carvao, Electrobras, and the Ministry of Mines and Energy of Brazil in clean coal technologies.

655	550	6/20/2003	6/20/2008	Primary DOE			None	Science and Technology	Cooperation in Nuclear Energy

Title: ***Agreement between the Department of Energy of the United States of America nd the Ministry of Science and Technology of the Federative Republic of Brazil Concerning Cooperation in Nuclear Energy***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
75	412	10/14/199	10/14/200	Primary DOE			None	Energy Research and Development	Energy Technology
	Title:	***Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology***							
	Comment:	Umbrella Agreement							
279	412	10/14/199	10/14/200	Secondary DOE		75	Primary DOE	Fossil Energy	Annex 1 - Coal and Power Systems
	Title:	***Annex I to the Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology in the Field of Coal and Power Systems***							
	Comment:	Exchange experience and views on clean coal technologies, advanced power systems, advanced coal preparation, and environmental monitoring technologies and standards.							
280	412	10/14/199	10/14/200	Secondary DOE		75	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Renewable Energy
	Title:	***Annex II to the Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology in the Field of Renewable Energy***							
	Comment:	Collaboration on renewables resource assessment, integration in electric utility, policy analysis, and identification of opportunities for renewable energy in Brazil.							
281	412	10/14/199	10/14/200	Secondary DOE		75	Primary DOE	Energy Efficiency and Renewable Energy	Annex 3- Energy Efficiency
	Title:	***Annex III - to the Implementing Arrangement between the United States of America and the Federative Republic of Brazil for Cooperation in the Area of Energy Technology in the Field of Energy Efficiency***							
	Comment:	Collaboration to increase energy, efficiency, promote global environmental protection, and stimulate the market in Brazil for energy efficiency goods and services.							
76	332	4/18/1994	4/18/2004	Primary DOE			None	Arms Control and Nonproliferation	International Safeguards Applications
	Title:	***Agreement between the United States Department of Energy and the Brazilian-Argentine Agency for Accounting and Control of Nuclear Materials Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***							
	Comment:								
77	376	9/19/1995	9/19/2000	Primary DOE			None	Arms Control and Nonproliferation	International Safeguards Applications
	Title:	***Agreement between the United States Department of Energy and the National Nuclear Energy Commission of Brazil Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, and Physical Protection, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***							
	Comment:								
651	546	9/17/2001	9/17/2006	Secondary DOE		77	Primary DOE	Arms Control and Nonproliferation	Extension - Agreement bet. DOE and the National Nuclear Energy Commission
	Title:	***Agreement to Extend the Agreement between the Department of Energy of the United States and the National Nuclear Energy Commission of Brazil Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, Physical Protection, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***							
	Comment:	5- year extension							

Country: ***Canada***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
28	363	7/21/1995		Statement of Intent		21	Broad	Energy Efficiency and Renewable Energy	Building Energy Simulation Tools
	Title:	***Statement of Intent between the United States Department of Energy and the Department of Natural Resources of Canada on Building Energy Simulation Tools***							
	Comment:	Collaborate in building energy simulation R&D and information dissemination.							
614	509	10/22/200	10/22/200	Primary DOE			None	Energy Efficiency and Renewable Energy	Arrangement between DOE and Dept. of Natural Resources Canada
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Department of Natural Resrouces Canada for Cooperation in the areas of Microgeneration and Community Energy Systems***							
	Comment:								
632	527	5/10/2000	5/10/2005	Primary DOE			None	Science and Technology	Cooperation in the area of Bioenergy
	Title:	***Implementing Arrangement between the United States Department of Energy and the Department of Natural Resources of Canada for Cooperation in the area of Bioenergy***							
	Comment:								
656	551	6/17/2003	6/17/2008	Primary DOE			None	Nuclear Energy	Nuclear Energy Research
	Title:	***Implementing Arrangement between the United States Department of Energy and the Department of Natural Resources of Canada and Atomic Energy of Canada Limited for Collaboration in the area of Nuclear Energy Research***							
	Comment:	Foreign Party for Atomic Energy of Canada Limited signed this agreement also on June 17, 2003.							
81	425	3/18/1998	3/18/2008	Primary DOE			None	Energy Research and Development	Energy R&D
	Title:	***Memorandum of Understanding between the Department of Energy of the United States of America and the Department of Natural Resources of Canada on Collaboration in Energy Research and Development***							
	Comment:	Establish wider areas of cooperation for mutual benefit							
524	469	2/1/2000	2/1/2005	Secondary DOE		81	Primary DOE	Fossil Energy	DOE/NRCan Fuel Cells Implementing Arrangement
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Department of Natural resources Canada for Cooperation in the area of Fuel Cells***							
	Comment:	Automatic Renewal after 5 years with written agreement of the participants.							
525	470	2/1/2000	2/1/2005	Secondary DOE		81	Primary DOE	Fossil Energy	DOE/NRCan Fossil Fuels Implementing
	Title:	***Implementing Arrangement between Department of Energy of the United States of America and the Department of Natural Resources Canada for Cooperation in the area of Fossil Fuels***							
	Comment:	Automatic renewal for 5 years with written agreement of the participants.							

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646	541	9/11/2002	9/11/2007	Tertiary DOE		525	Secondary DOE	Fossil Energy	Project Annex I - Weyburn CO2 Sequestration

Title: ***Project Annex I - Weyburn CO2 Sequestration Project under the Implementing Arrangement Between the Department of Energy of the United States of America and the Department of Natural Resources Canada for Cooperation in the Area of Fossil Fuels***

Comment:

27	341	11/18/199		Statement of Intent		21	Broad	Energy Efficiency and Renewable Energy	Biennial Biomass Conf. of the Americas

Title: ***Statement of Intent between the United States Department of Energy and the Department of Mines and Resources on Biennial Biomass Conference of Americas***

Comment: Collaborate in a biennial conference to present the latest results in biomass energy research and development.

Country: ***Chile***

35	352	3/7/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Control Emissions of Greenhouse Gases

Title: ***Statement of Intent for Sustainable Development Cooperation and Joint Implementation of Measures to Control Emissions of Greenhouse Gases Between the Department of Energy of the United States of America and the National Energy Commission of Chile***

Comment: Intent to facilitate the development of joint implementation projects in order to encourage: market deployment of greenhouse gas-reducing technologies, including energy efficiency and renewable energy technologies; education and training programs, etc.

474	430	4/18/1998	4/12/2000	Statement of Intent			None	Energy Efficiency and Renewable Energy	Natural Gas-Powered Bus Pilot Project

Title: ***Statement of Intent Concerning the Natural Gas-Powered Bus Pilot Project in the Metropolitan Region of Chile***

Comment: Signed in Santiago, Chile, during the SOAII

Country: ***China***

1	427	1/31/1979	4/30/2001	Intergovernmental			None	Science and Technology	Gov't to Gov't S&T

Title: ***Agreement between the Government of United States of America and the Government of People's Republic of China on Cooperation in Science and Technology***

Comment: Need copy of agreement

238	123	5/11/1983	4/30/2001	Primary DOE		1	Intergovernmental	Fusion Energy	Protocol on Nuclear Physics and Magnetic Fusion

Title: ***Protocol between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China on Cooperation in the Fields of Nuclear Physics and Controlled Magnetic Fusion Research***

Comment: Cooperate in promoting each other's program in Nuclear Physics and Controlled Magnetic Fusion. Co-terminates with umbrella S&T agreement.

290	223	9/28/1987	4/30/2001	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 2 - Mine Safety and Health

Title: ***Annex II to the Protocol on Cooperation in the Field of Fossil Energy Research and Development between the Department of Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China in the Area of Mine Safety and Health***

Comment: Co-terminates with the Protocol

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
291	217	8/19/1987	4/30/2001	Secondary DOE		239	Primary DOE	Energy Research and Development	Annex 3 - Atmospheric Trace Gasses

Title: ***Annex III to the protocol on fossil energy R&D on Cooperation in the field of atmospheric trace gases***

Comment: Co-terminates with the Protocol

292	226	10/13/198	4/30/2001	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 4 - Coal Preparation & Waste Stream Utilization

Title: ***Annex IV to protocol on cooperation in field of fossil energy R&D between U.S. Department of Energy & Ministry of Coal Industry of the People's Republic of China in the area of coal preparation and waste stream utilization***

Comment: TASKS PLANNED WERE COMPLETED IN 10/90. DISCUSSIONS ON POSSIBLE FURTHER COOPERATION IN COAL PREP. Co-terminates with the Protocol

293	227	10/13/198	4/30/2001	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 5 - Atmospheric Fluidized Bed Combustion Info Exchange

Title: ***Annex V to protocol on cooperation in field of fossil energy R&D between U.S. Department of Energy - Ministry of Coal Industry of the People's Republic of China in the area of atmospheric fluidized bed (AFB) combustion information exchange***

Comment: EXCHANGE OF REPORTS AND DATA. Co-terminates with Protocol

296	349	2/23/1995	2/23/2000	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 11 - Coal Bed Methane Recovery and Utilization

Title: ***Annex XI to the Protocol for Cooperation in the Field of Fossil Energy Research and Development between the Department Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China for Cooperation in the Area of Coalbed Methane Recovery and Utilization***

Comment: Promote technological and economic cooperation in coal bed methane recovery and utilization technology in order to make positive contributions toward improving recovery efficiency and utilization of globally significant natural gas energy resources.

297	348	2/23/1995	2/23/2000	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 12 - Regional Climate Research

Title: ***Annex XII to the Protocol on Cooperation in the Field of Fossil Energy Research and Development between the Department Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China for Cooperation in the Area of Regional Climate Research with the China Meteorological Administration***

Comment: Establish a program of joint R&D and information exchange to document regional climate and climate change, to predict regional climate and climate change and to identify regional impacts of climate

485	439	11/14/199	11/14/200	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 13 - Fossil Fuel Utilization

Title: ***Annex XIII to the Protocol for Cooperation in the Field of Fossil Energy Research and Development between the Department of Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China in the Area of Fossil Fuel Utilization for Production of Chemicals***

Comment: Co-terminiates with Protocol

298	413	11/14/199	11/14/200	Secondary DOE		239	Primary DOE	Fossil Energy	Annex 14 - Bilateral Consultations on Coal Industry

Title: ***Annex XIV to the Protocol for Cooperation in the field of Fossil Energy Research & Development between the Department of Energy of the United States of America and the Ministry of Coal Industry of the People's Republic of China on Bilateral Consultations and Exchanges on Coal Industry Development and Information***

Comment: Co-terminates with the Protocol

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
618	513	12/7/2000	12/7/2005	Secondary DOE		239	Primary DOE	Fossil Energy	Annex III - for Cooperation in the areas of Oil and

Title: ***Annex III to the Protocol for Cooperation in the Field of Fossil Energy Technology Development and Utilization between the Department of Energy of the United States of America and The Ministry of Science and Technology of the People's Republic of China for Cooperation in the areas of Oil and Gas***

Comment:

240	351	2/23/1995	2/22/2005	Primary DOE		1	Intergovernmental	Energy Efficiency and Renewable Energy	Protocol for Energy Efficiency and Renewable

Title: ***Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China***

Comment: Desire to conduct bilateral energy consultations by forming a Chinese-American Ministerial Working Group to enhance the understanding of energy issues and promote the exchange of information on energy policies, programs and technologies.

478	432	6/27/1995	6/27/2000	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 1 - 100 Counties Renewable Energy

Title: ***Annex I to the Protocol for Cooperation in the Field of Energy Efficiency and Renewable Energy between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China for Developing Cooperative Activities in the Area of Renewable Energy Under the Hundred Counties Integrated Rural Energy Development Program in China between the Department of Energy of the United States of America and the Ministry of Agriculture of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first

299	420	10/25/199	10/25/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Wind Energy Development

Title: ***Wind Energy Development in China Developing Cooperative Activities between the Department of Energy of the United States of America and the Ministry of Electric Power of the People's Republic of China ANNEX II under the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization between the Department of Energy of the United States of America and the State Science and Technology Commission of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first.

300	422	10/25/199	10/25/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 3 - Energy Efficiency

Title: ***Annex III to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and utilization between the Department of Energy of the United States of America and the State Science and Technology Commission of the People's Republic of China for Cooperation Between the Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China in the Area of Energy Efficiency***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first

301	421	10/25/199	10/25/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 4 - Renewable Energy Business Development

Title: ***Renewable Energy Business Development ANNEX IV Cooperative Activities between the Department of Energy of the United States of America and the State Economic and Trade Commission of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first

302	414	11/18/199	11/18/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 5 - Electric Vehicle Development

Title: ***The Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China for Cooperation in the Field of Energy Efficiency and Renewable Energy Technology Development and Utilization Annex V Electric Vehicle and Hybrid-Electric Vehicle Development***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
303	415	11/18/199	11/18/200	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 6 - Geothermal Production and Use

Title: ***Geothermal Production and Use Cooperative Activities between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China Annex VI under The Protocol for cooperation in the Field of Energy Efficiency and renewable Energy Technology Development and Utilization between the Department of Energy of the United States of America and the State Science and Technology Commission of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first.

490	443	7/9/1998		Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Design Criteria for Energy Efficient Building

Title: ***Statement of Work between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China***

Comment:

563	486	5/11/2000	5/11/2005	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex 7 - Renewable Energy Policy and Planning

Title: ***Renewable Energy Policy and Planning Annex VII Cooperative Activities between Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China***

Comment: Remains in force for five years or until termination of the Protocol, whichever occurs first.

616	511	7/18/2001		Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Design Criteria for Energy Efficient Building

Title: ***Amendment to The Statement of Work of July 9, 1998 between The Department of Energy of the United States of America and The Ministry of Science and Technology of the People's Republic of***

Comment:

621	516	2/12/2002	2/12/2007	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex II - The State Power Corporation of China

Title: ***Agreement to Extend Annex II to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization for Cooperative Activities in Wind Development in China between the Department of Energy of the United States of America and the State Power Corporation of China***

Comment:

622	517	2/12/2002	2/12/2007	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex III - State Planning Commission

Title: ***Agreement to Extend and Amend Annex III to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization for Cooperative Activities in Energy Efficiency between The Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China***

Comment:

623	518	2/12/2002	2/12/2007	Secondary DOE		240	Primary DOE	Energy Efficiency and Renewable Energy	Annex IV - State Economic and Trade Commission

Title: ***Agreement to Extend and Amend Annex IV to the Protocol for Cooperation in the Fields of Energy Efficiency and Renewable Energy Technology Development and Utilization for Cooperative Activities in Renewable Enerby Business Development between the Department of Energy of the United States of America and the State Economic and Trade Commission of the People's Republic of***

Comment:

241	38	1/31/1979	4/30/2001	Primary DOE		1	Intergovernmental	High Energy Physics	High Energy Physics

Title: ***Implementing Accord between the U.S. Department of Energy and the State Scientific and Technological Commission of the People's Republic of China on Cooperation in the Field of High Energy Physics.***

Comment: Co-Terminates with the S&T Agreement

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
242	311	11/4/1992	11/4/2002	Primary DOE		1	Intergovernmental	High Energy Physics	Superconducting Super Collider
	Title:	***Implementing Accord between the U.S. Department of Energy and the Chinese Academy of Sciences for a Program of Collaboration on the Superconducting Super Collider***							
	Comment:								
522	467	1/12/2000	1/12/2005	Primary DOE		1	Intergovernmental	Information and/or Personnel Exchange	Exchange of Energy Information
	Title:	***Protocol for Cooperation Concerning the Exchange of Energy Information between the Department of Energy of the United States of America and the National Bureau of Statistics of the People's Republic of China***							
	Comment:								
531	476	4/20/2000	4/30/2001	Primary DOE		1	Intergovernmental	Fossil Energy	Fossil Energy Protocol
	Title:	***Protocol for Cooperation in the Field of Fossil Energy Technology Development and Utilization between the Department of Energy of the United States of America and the Ministry of Science and Technology of the People's Republic of China***							
	Comment:	Remains in force for 5 years from date of signature or as long as the Umbrella Agreement (US-China S&T) remains in force, whichever is shorter.							
649	544	11/19/200	11/19/200	Secondary DOE		531	Primary DOE	Fossil Energy	Annex II - Cooperation in the area of Clean Fuels
	Title:	***Annex II to the Protocol on Cooperation in the Field of Fossil Energy Technology Development and Utilization between The Department of Energy of the United States of America and The Ministry of Science and Technology of the People's Republic of China for Cooperation in the Area of Clean Fuels***							
	Comment:								
3	410	10/29/199		Intergovernmental			None	*Other - Energy and Environment	Energy and Environment Cooperation Initiative
	Title:	***United States of American and People's Republic of China Energy and Environment Cooperation Initiative***							
	Comment:								
31	347	2/23/1995		Statement of Intent			None	Nuclear Energy	Research Reactor Fuel
	Title:	***Statement of Intent between the Department of Energy of the United States of America and the China Atomic Energy Authority of the People's Republic of China on Research Reactor Fuel***							
	Comment:	Exchange information and views on opportunities for the conversion of research reactors to the use of low enriched uranium.							
493	445	6/29/1998	6/29/2003	Primary DOE			None	Nuclear Energy	Nuclear Technologies Agreement
	Title:	***Agreement between the Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China on Cooperation Concerning Peaceful Uses of Nuclear Technologies***							
	Comment:	Subject to the Gov't to Gov't Peaceful Uses of Nuclear Energy Agreement signed July 23, 1985.							
494	445	6/29/1998	6/29/2003	Secondary DOE		493	Primary DOE	Nuclear Energy	Annex 1 - IPR
	Title:	***Annex I- Intellectual Property***							
	Comment:	Attached to original agreement.							

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620	515	5/11/2000	5/11/2005	Secondary DOE		493	Primary DOE	Energy Efficiency and Renewable Energy	Annex VII

Title: ***Renewable Energy Policy and Planning Annex VII Cooperative Activities Between the Department of Energy of the United States of America and the State Development Planning Commission of the People's Republic of China***

Comment:

554	483	3/29/1999		Statement of Intent			None	*Other - Energy and Environment	MOU on Clean Energy Projects and Technologies

Title: ***Memorandum of Understanding Among The State Development Planning Commission of the People's Republic of China, China Development Bank, The United States Department of Energy, and Export Import Bank of the United States Regarding Cooperation on Clean Energy Projects and Technologies***

Comment:

642	537	9/10/2002		Statement of Intent			None	Science and Technology	SOI - Clean Energy Technologies

Title: ***Statement of Intent between the Department of Energy of the United States of America and the Municipality of Beijing of the People's Republic of China Concerning Clean Energy Technologies***

Comment:

84	345	2/23/1995		Primary DOE			None	*Other - Bilateral Energy Consultations	Bilateral Energy Consultations

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the State Planning Commission of the People's Republic of China on Bilateral Energy Consultations***

Comment: Desire to conduct bilateral energy consultations by forming a Chinese-American Ministerial Working Group to enhance the understanding of energy issues and promote the exchange of information on energy policies, programs and technologies.

Country: ***Costa Rica***

36	401	5/9/1997	5/9/2002	Statement of Intent			None	Energy Efficiency and Renewable Energy	Electric Transport

Title: ***Statement of Intent by the Ministry of Environment and Energy of Costa Rica and the Department of Energy of the United States of America for Cooperation in the Field of Electric Transport***

Comment:

504	451	11/17/199	11/17/200	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Arrangement for information Exchange and Cooperation in the Area of Peaceful Uses of Nuclear Energy between Argonne National Laboratory and Atomic Energy Commission of Costa Rica***

Comment: ACDA led sister lab.

Country: ***Czech Republic***

4	300	10/22/199	10/22/200	Intergovernmental			None	Science and Technology	Science & Technology

Title: ***Agreement between the Government of the Czech and Slovak Federal Republic and the Government of the United States of America for Scientific and Technological Cooperation***

Comment: Develop, support and facilitate S&T cooperation between cooperating organizations between the two countries in the areas of basic science, environmental protection, medical sciences and health, agriculture, engineering research, energy, natural resources and their useful utilization, standardization, S&T policy and management.

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Country: ***Egypt***

517	463	7/1/1999	7/1/2004	Primary DOE		None		Energy Research and Development	Energy Technology Agreement

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Electricity and Energy of the Arab Republic of Egypt for Cooperation in Energy Technology***

Comment:

527	472	2/23/2000	2/23/2005	Secondary DOE		517	Primary DOE	Energy Efficiency and Renewable Energy	Annex 1 - Renewable Energy

Title: ***Annex I to the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Electricity and Energy of the Arab Republic of Egypt in the Field of Renewable Energy***

Comment:

528	473	2/23/2000	2/23/2005	Secondary DOE		517	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Fuel Cells

Title: ***Annex II to the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Electricity and Energy of the Arab Republic of Egypt for Cooperation in Energy Technology in the Field of Fuel Cells***

Comment:

Country: ***Estonia***

526	471	2/4/2000	2/4/2003	Primary DOE		None		Fossil Energy	Oil Shale Research and Utilization

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Economic Affairs of the Republic of Estonia for Scientific and Technology Cooperation on Oil Shale Research and Utilization***

Comment: Establishes a Joint Coordinating Committee to manage cooperative work under the agreement.

99	353	3/13/1995	3/13/2000	Primary DOE		None		Environmental Restoration and Waste Management	Technical Cooperation in Clean-up Paldiski Site

Title: ***Memorandum of Understanding between the Department of Energy of the United States and the Ministry of Economy of Estonia for Technical Cooperation in the Clean-up of the Paldiski Nuclear Training Site***

Comment: Cooperate and share interests and objectives in environmental restoration and in the safe and effective management of hazardous wastes and the clean-up of the environment at and around the nuclear training site at Paldiski, Estonia.

Country: ***European Atomic Energy Community (EURATOM)***

568	490	1/6/1995	1/6/2005	Primary DOE		None		International Safeguards	EURATOM Safeguards

Title: ***Agreement between the European Atomic Energy Community Represented by the Commission of the European Communities and the United States Department of Energy in the field of Nuclear Materials Safeguards Research and Development***

Comment: Auto renewal for five years periods.

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576	490	2/18/1999	2/18/2001	Secondary DOE		568	Primary DOE	International Safeguards	Action Sheet 10 - Tank Analysis

Title: ***Action Sheet 10 - The United States Department of Energy (DOE) and The European Atomic Energy Community represented by The Commission of European Communities (EURATOM) for Computer Code Development for Automated Acquisition and Real-Time Analysis of Volume Measurement Data***

Comment:

612	507	5/14/2001	5/14/2006	Primary DOE			None	Fusion Energy	Fusion Agreement between EURATOM and DOE

Title: ***Agreement for Cooperation between the European Atomic Energy Community Represented by the Commission of the European Communities and the Department of Energy of the United States of America in the Field of Fusion Energy Research and Development***

Comment:

Country: ***European Union***

648	543	5/14/2001	5/14/2006	Primary DOE			None	Science and Technology	Non-Nuclear Energy S&T Agreement

Title: ***Implementing Agreement between the Department of Energy of the United States of America and the European Commission for Non-Nuclear Energy Scientific and Technological Co-operation***

Comment:

Country: ***Finland***

116	393	1/17/1997	1/17/2001	Primary DOE			None	Energy Research and Development	Energy R&D

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Trade and Industry of Finland for Cooperation in Energy Research and***

Comment: Auto renewal for 5 years

Country: ***France***

39	132	10/27/198		Secondary DOE		121	Primary DOE	Environmental Restoration and Waste Management	Radioactive Waste Management--West Valley

Title: ***Statement of Intent between the United States Department of Energy and the French Commissariat a l'Energie Atomique on the West Valley Demonstration Project***

Comment: Cooperate in the areas of treatment of radioactive waste and decontamination and decommissioning activities throughout the course of the DOE Demonstration Project at the Western New York Nuclear Service Center located at West Valley, New York.

40	185	6/20/1986		Secondary DOE		121	Primary DOE	Civilian Radioactive Waste Management	Low-Level Radioactive Waste

Title: ***Statement of Intent between the United States Department of Energy and the French Commissariat a l'Energie Atomique in the Field of Low-Level Radioactive Waste***

Comment: Confirm intent to expand radioactive waste management cooperation in the area of surface and subsurface disposal and storage of low-level radioactive waste, as well as defined activities.

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128	416	12/29/199	12/29/200	Primary DOE			None	Arms Control and Nonproliferation	Material Control and Accounting
	Title:	***Agreement between the Department of Energy of the United States and the Commissariate a l'Eenergie Atomique of France Concerning Research and Development in the Field of Nuclear Material Control and Accounting Measures***							
	Comment:	Cooperate on research, development, testing and evaluation in the area of nuclear material control and accounting measures.							
577	416	1/20/2000	1/20/2001	Secondary DOE		128	Primary DOE	Arms Control and Nonproliferation	Action Sheet 2 - Isotopic Analysis Evaluation Using the PC/FRAM Physics Isotopics Software
	Title:	***Action Sheet No. 2 The United States Department of Energy (DOE) and The Commissariat a I'Energie Atomique (CNEA) of France for Isotopic Analysis Evaluation Using the PC/FRAM Physics Isotopics Software***							
	Comment:								
129	417	12/29/199	12/29/200	Primary DOE			None	Arms Control and Nonproliferation	Physical Protection of Nuclear Materials
	Title:	***Agreement between the Department of Energy of the United States and the Commissariat a l'Energie Atomique of France Concerning Research and Development in the Field of Physical Protection of Nuclear Materials and Facilities***							
	Comment:	Improve the US & France nuclear materials and facilities physical protection procedures							
567	417	3/14/2000	3/14/2002	Secondary DOE		129	Primary DOE	International Safeguards	Action Sheet 3 - Nuclear Materials Transportation Security
	Title:	***Action Sheet No. 3 The United States Department of Energy (DOE) and the Commissariat a l'Energie Atomique of France (CEA) for Nuclear Transportation Security***							
	Comment:								
130	357	4/26/1995	4/26/2005	Primary DOE			None	High Energy Physics	Accelerator Driven Technology
	Title:	***Agreement between the Department of Energy and the Commissariat a l'Energie Atomique for Cooperation in Research Development and Application for Accelerators driven Technology***							
	Comment:	Conduct cooperative program of scientific and technical engineering in research, development and application for accelerator driven technology							
131	377	9/20/1995	9/20/2000	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management
	Title:	***Agreement between the United States Department of Energy and the French Commissariat a l'Energie Atomique in the field of Radioactive Waste Management***							
	Comment:	Cooperation in the management of radioactive wastes for the purpose of minimizing the consequences of radioactive contamination on health and environment and promoting the safe and economic application of nuclear energy. Cooperation includes: characterization of geologic formations; field/laboratory testing; preparation/packaging of radioactive wastes; disposal in geologic formations; environmental and safety issues, etc.							
132	379	10/8/1995	10/8/2000	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management
	Title:	***Agreement between the United States Department of Energy and the National Radioactive Waste Management Agency of France in the Field of Radioactive Waste Management***							
	Comment:	Cooperate for purposes of minimizing consequences of radioactive contamination on health and environment and promoting safe and economic application of nuclear energy.							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
564	487	5/9/2000	5/9/2005	Primary DOE			None	Defense Programs	DOE/DGA Emerging Technologies
Title:	***Technical Arrangement between the Department of Energy of the United States of America and the Minster of Defense of the French Repubic Concerning Cooperation in the Application of Emerging Technologies***								
Comment:	Auto Renewal for 5 year periods.								
582	257	8/9/1994	8/9/2004	Primary DOE			None	Defense Programs	1994- High Energy Lasers
Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat a l'Energie Atomique of France of Cooperation in Research, Development and Applications of High Energy Lasers and high Energy Laser-Mater Interaction Physics***								
Comment:									
316	342	11/19/199		Secondary DOE		582	Primary DOE	Defense Programs	Megajoule-Class Solid State Lasers - IA #1
Title:	***Implementing Arrangement I between the United States Department of Energy and the French Atomic Energy Commission concerning Sharing of Science and Technology Information Related to Megajoule-class Solid State Lasers***								
Comment:	Sharing of specific S&T information related to megajoule-class solid state lasers.								
317	343	11/19/199	8/9/2004	Secondary DOE		582	Primary DOE	Defense Programs	Megajoule-Class Solid State Laser Technology - IA
Title:	***Implementing Arrangement #2 between the United States Department of Energy and the French Commissariat a l'Energie Atomique on Cooperation in Megajoule-Class Solid State Laser Technology***								
Comment:	Implement cooperative activities in research and development in megajoule-class solid state laser technology (high-power, high-energy solid state lasers and target experimental chambers and support								
601	496	9/18/2000	9/18/2005	Primary DOE			None	Nuclear Energy	Advanced Nuclear Reactor
Title:	***Agreement between The Department of Energy of the United States of America and The Commissariat A L'Energie Atomique of France for Cooperation in Advanced Nuclear Reactor Science and Technology***								
Comment:									
635	530	7/9/2001	7/9/2006	Secondary DOE		601	Primary DOE	Nuclear Energy	Advanced Nuclear Reactor Science and Technology (I-NERI)
Title:	***Implementing Arrangement No. 1 under the Agreement between the Department of Energy of the United States of America and Commissariat A L'Energie Atomique of France for Cooperation in Advanced Nuclear Reactor Science and Technology***								
Comment:	International Nuclear Energy Research Initiative								
629	524	1/2/2002	1/2/2007	Statement of Intent			None	Exchange of Information on Research in Life Sciences	SOI between DOE and France
Title:	***Statement of Intent Between the Department of Energy of the United States of America and the Commissariat A' L'Energie Atomique of France Concerning Exchange of Information on Research in Life Sciences***								
Comment:									
630	525	3/13/2002	3/12/2007	Primary DOE			None	Computer Sciences	Computer Sciences
Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat A' L'E'nergie Atomique of France Concerning Cooperation in Computer Sciences***								
Comment:									

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
631	526	3/13/2002	3/13/2007	Primary DOE			None	Fundamental Science	Fundamental Science on Stockpile Stewardship
	Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat A' L'E'nergie Atomique of France Concerning Cooperation in Fundamental Science Supporting Stockpile Stewardship***							
	Comment:								
650	545	5/23/2002	5/23/2007	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management Agreement
	Title:	***Agreement between the Department of Energy of the United States of America and the Commissariat A L'Energie Atomique of France in the field of Radioactive Waste Management***							
	Comment:								

Country: ***Germany***

613	508	7/24/2001	7/24/2006	Primary DOE			None	Science and Technology	Agreement between DOE and Germany on Dense Plasma Physics
	Title:	***Implementing Agreement between the Federal Ministry of Education and Research of the Federal Republic of Germany and the Department of Energy of the United States of America on Collaboration in the Field of Dense Plasma Physics***							
	Comment:								
88	419	2/20/1998	2/20/2003	Primary DOE			None	Energy Research and Development	Energy Research
	Title:	***Agreement Between the Department of Energy of the United States of America and the Federal Ministry of Education, Science, Research and Technology of the Federal Republic of Germany on Cooperation in Energy Research, Science and Technology, and Development***							
	Comment:	Auto renewal for 5 year periods. Broad-based umbrella agreement to allow formal cooperation in various program areas							
480	434	5/12/1998	5/12/2001	Secondary DOE		88	Primary DOE	Environmental Restoration and Waste Management	Project: Transportation of Rad Waste
	Title:	***Project Agreement between the Department of Energy of the United States of America and the Federal Institute for Material Research and Testing of the Federal Republic of Germany: Technical Exchange and Cooperation on Transportation Requirements in the Field of Management of Radioactive Waste***							
	Comment:								
93	31	9/27/1977		Primary DOE			None	Arms Control and Nonproliferation	Nuclear Materials Safeguards/Physical Security
	Title:	***Agreement between the United States Department of Energy and the Federal Minister for Research and Technology of Germany Cooperate in the field of Nuclear Material Safeguards and Physical Security Research and Development***							
	Comment:	Open-end expiration date							

Country: ***Ghana***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
149	392	10/1/1996	10/1/2001	Primary DOE			None	Energy Research and Development	Energy Policy, S&T and Development

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Mines and Energy of the Republic of Ghana on Cooperation in Energy Policy, Science and Technology, and, Development***

Comment: Facilitate and establish cooperative activities in such areas as: energy efficiency and renewable energy; fossil energy, including natural gas, liquefied petroleum gas, and clean coal technologies; environmental management, including utilization of energy technologies, particularly cost-effective technologies aimed at reducing emissions of greenhouse gases and minimizing environmental impacts; independent power project development, etc.

330	399	2/27/1997	2/27/2001	Secondary DOE		149	Primary DOE	Energy Efficiency and Renewable Energy	Industrial Assessment Center

Title: ***Implementing Arrangement Between the Department of Energy of the United States of America and the Ministry of Mines and Energy of the Republic of Ghana: Exchange of Information, Technical Assistance and Collaboration for the Establishment of the Industrial Assessment Center at the University of Science and Technology in Kumasi, Ghana***

Comment:

43	378	9/29/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Energy Efficiency and Renewable Energy

Title: ***Statement of Intent between the Department of Energy of the United States and the Ministry of Mines and Energy of the Republic of Ghana to Cooperate in the Fields of Energy Efficiency and Renewable Energy***

Comment: Exchanging experience and views on opportunities for the utilization of energy efficiency and renewable energy technologies.

44	380	10/30/199		Primary DOE			None	Nuclear Energy	Peaceful Uses of Nuclear Energy

Title: ***Memorandum of Understanding for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the Ghana Atomic Energy Commission and Argonne National Laboratory***

Comment: Establish the basis for a cooperative institutional relationship for the exchange of S&T information regarding the peaceful uses of atomic energy. This is between Ghana Atomic Energy Commission and ARGONNE NATIONAL LAB)

Country: ***India***

615	510	9/13/2000	9/13/2005	Primary DOE			None	Energy Efficiency and Renewable Energy	MOU between DOE and India concerning Energy Consultations

Title: ***Memorandum of Understanding between the Ministry of Power of the Republic of India and the Department of Energy of the United States of America Concerning Energy Consultations***

Comment:

Country: ***Israel***

156	384	2/1/1996	2/1/2001	Primary DOE			None	Energy Efficiency and Renewable Energy	Energy Cooperation

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Energy and Infrastructure of Israel Concerning Energy Cooperation***

Comment: Establish a framework for collaboration in energy R&D activities including: solar energy; biomass; energy efficiency; wind energy; fossil energy, including oil, gas and coal; electric power production and transmission. Annex I on Intellectual Property and Annex II on Security Obligations are attached. Discussion underway in clean coal technology and electric vehicles.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
530	475	2/22/2000		Statement of Intent			None	Arms Control and Nonproliferation	SOI on Nonproliferation, Arms Control and Regional Security

Title: ***Letter of Intent between the Department of Energy of the United States of America and the Atomic Energy Commission of Israel on cooperation in the Fields of Non-Proliferation, Arms Control, and Regional Security***

Comment:

617	512	10/23/200	10/23/200	Primary DOE			None	Energy Efficiency and Renewable Energy	Cooperation in the Field of High Temperature Superconductivity

Title: ***Implementation Agreement 3 between the Department of Energy of the United States of America and the Ministry of National Infrastructure of the State of Israel for Cooperation in the Field of High Temperature Superconductivity***

Comment:

Country: ***Italy***

160	358	5/26/1995	5/26/2000	Primary DOE			None	Energy Research and Development	Energy R&D

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Italian Republic in the Field of Energy Research and Development***

Comment: continues 1985 MOU in Energy R&D

344	358	5/7/1997		Secondary DOE		160	Primary DOE	Fossil Energy	Annex 3 - Fossil Energy

Title: ***Annex III to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy to Cooperate in the Field of Fossil Energy***

Comment: Two additional areas were added in March 1998;fuel cells for power applications and externally fired combined cycle systems

345	358	3/24/1998	3/24/2003	Secondary DOE		160	Primary DOE	Energy Efficiency and Renewable Energy	Annex 4 - Advanced Geothermal Technology

Title: ***Annex IV to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation on Advanced Geothermal Technology***

Comment: Provides for collaboration between Ladrello and the Geyser Geothermal Facilities

346	358	3/24/1998	3/24/2008	Secondary DOE		160	Primary DOE	Energy Efficiency and Renewable Energy	Annex 5 - Biomass Energy

Title: ***Annex V to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation in the Field of Biomass Energy***

Comment: Information Exchange on biomass systems. Task sharing on hot gas clean-up for medium-scale gasifiers.

347	358	3/24/1998	3/24/2008	Secondary DOE		160	Primary DOE	Energy Efficiency and Renewable Energy	Annex 6 - Photovoltaic Technology

Title: ***Annex VI to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation in the Field of Photovoltaic Technology***

Comment: Info exchange on reducing manufacturing costs of PV cells. Cooperation on guidelines for building integrated PV systems.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
492	444	7/10/1998	7/10/2003	Secondary DOE		160	Primary DOE	Energy Research and Development	Annex 7 - Electric and Hybrid Vehicles

Title: ***Annex VII to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce and Handicraft of the Republic of Italy in the Field of Energy Research and Development for Cooperation in the Field of Electric and Hybrid Vehicles***

Comment: Remains in force for 5 years or until the Agreement expires, whichever is sooner.

7	323	10/4/1993	10/4/2003	Intergovernmental			None	Science and Technology	Gov't to Govt S & T

Title: ***Agreement between the Government of the United States of America and the Government of the Italian Republic for Scientific and Technological Cooperation***

Comment: Science and Technology agreement between the United States and the Government of Italy which allows U.S. Government agencies to undertake cooperation in their respective areas of responsibility. Renewed last in 1998.

46	323	10/31/198		Statement of Intent		7	Intergovernmental	Information and/or Personnel Exchange	Synchrotron Light Source

Title: ***Protocol of Intent of Intent between the Department of Energy of the United States of America and the Ministry of the University and of Scientific and Technological Research of the Republic of Italy***

Comment:

Country: ***Japan***

251	385	5/3/1996	5/3/2001	Primary DOE		10	Intergovernmental	Science and Technology	DOE/STA Basic Science & Technology

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Science and Technology Agency of Japan in the Field of Basic Science and Technology***

Comment: Determine cooperation on joint projects in the field of basic S&T which may include nuclear physics; synchrotron radiation; medical application of the radiation produced by accelerators; spin physics program at the Relativistic Heavy Ion Collider and biologic effects of radiation.

166	195	12/3/1986	12/2/2001	Primary DOE			None	Nuclear Energy	Radioactive Waste Management

Title: ***Agreement between the United State Department of Energy and the Power Reactor and Nuclear Fuel Development Corp of Japan in the Area of Radioactive Waste Management***

Comment: Study topics and develop cooperatively and jointly technology and techniques necessary for the safe management of radioactive wastes.

511	195	7/17/1998	7/17/2000	Secondary DOE		166	Primary DOE	Civilian Radioactive Waste Management	Project Annex on Engineered Barriers

Title: ***Project Annex for Cooperation in Near-Field Performance and Analyses on the Long-Term Behavior of the Engineered Barriers under the Agreement between the Department of Energy of the United States of America and the Power Reactor and Nuclear Fuel Development Corporation Japan in the Area of Radioactive Waste Management***

Comment:

395 (PNC)	365	2/19/1997	5/19/2000	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 30 - Randomized Inspection

Title: ***Action Sheet PNC 30 The United States Department of Energy (DOE) and The Power Reactor and Nuclear Fuel Development Corporation of Japan (PNC) for Joint Study of Improved Safeguards Methodology Using Non-Notice Randomized Inspection***

Comment:

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545	365	12/18/199	12/18/200	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 37 - A-MAGB at Plutonium Fuel Production Facility
Title:	***Action Sheet 37 between the United States Department of Energy (DOE) and the Japan Nuclear Cycle Development Institute (JNC) for Development of Plutonium Isotopic Systems for Measuring Containers in the Advanced Material Accountancy Glove Box at PFPF***								
Comment:									
546	365	12/18/199	12/18/200	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 38 - Remote Monitoring for Tokai
Title:	***Action Sheet 38 between the United States Department of Energy (DOE) and the Japan Nuclear Cycle Development Institute (JNC) for Development of Remote Monitoring for Tokai Vitrification Facility Safeguards System***								
Comment:									
547	365	3/12/1999	3/12/2002	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 39 - Radiation Sensor Monitors at
Title:	***Action Sheet 39 between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Development of Radiation Sensor Monitors to Improve Dual C/S at Monju Reactor Core***								
Comment:									
548	365	3/22/1999	3/22/2002	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 40 - Isotope Dilution Gamma-Ray Spectrometry
Title:	***Action Sheet (40) between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Joint Research and Development Study of the Metrology of the Isotope Dilution Gamma-Ray Spectrometry (IDGS)***								
Comment:									
549	365	3/24/1999	9/24/2000	Secondary DOE		171	Primary DOE	Arms Control and Nonproliferation	Action Sheet 41 Conceptual Design for RETF Safeguards System Phase 2.
Title:	***Action Sheet 41 between The Japan Nuclear Cycle Development Institute (JNC) And The United States Department of Energy (DOE) For Joint Study on the Conceptual Design for the RETF Safeguards System (Phase-2)***								
Comment:									
173	356	4/11/1995	4/11/2005	Primary DOE			None	Nuclear Energy	Nuclear Reactor Technologies R&D
Title:	***Memorandum of Understanding between the United States Research and Development Organizations and the Japanese Research Organizations for Cooperation in Nuclear Reactor Technologies Research and Development***								
Comment:	Provide a vehicle for cooperation between DOE and its national laboratories, EPRI and the Advanced Reactor Corporation, and the Japanese R&D Organizations, including PNC, JAPC , JAERI and CRIEPI to cooperate in nuclear reactor technologies R&D.								
174	362	7/17/1995	7/17/2005	Primary DOE			None	Nuclear Energy	Nuclear Research and Development - JAERI
Title:	***Agreement between the Department of Energy of the United States of America and the Japan Atomic Energy Research Institute in the Field of Nuclear Research and Development***								
Comment:	Cooperation to conduct programs associated with nuclear R&D in such areas as basic nuclear S&T, nuclear safety, and advanced nuclear technologies.								

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397	428	4/23/1998	4/23/2001	Secondary DOE		174	Primary DOE	High Energy Physics	Collaborative program for target development for high power spallation neutron sources
Title:	***Specific Memorandum of Agreement between the Japan Atomic Energy Research Institute and the Department of Energy of the United States of America for Collaborative Program of Target Development for High Power Spallation Neutron Sources***								
Comment:	Work will be preformed at the Alternating Gradient Synchrotron facility at Brookhaven National Laboratory								
481	435	6/9/1997	6/9/2007	Secondary DOE		174	Primary DOE	Arms Control and Nonproliferation	SMA - Safeguards
Title:	***Specific Memorandum of Agreement Between the Japan Atomic Energy Research Institute and the Department of Energy of the United States of America Concerning Research and Development in Nuclear Material Control, Accountancy, Verification and Physical Protection***								
Comment:									
523	468	1/27/2000	1/27/2005	Primary DOE			None	Arms Control and Nonproliferation	DOE/JNC Safeguards Agreement
Title:	***Agreement between the Department of Energy of the United States of America and the Japan Nuclear Cycle Development Institute For Cooperation in Research and Development (R&D) Concerning Nuclear Material Control and Accounting Measures for Safeguards and Nonproliferation***								
Comment:	Improving the efficiency and effectiveness of equipment and techniques for safeguards and nonproliferation to implement policies and procedures pursuant to the non-proliferation treaty.								
550	482	1/27/2000	7/27/2001	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 42 Measurement Methods for Scrap Materials
Title:	***Action Sheet 42 between The Japan Nuclear Cycle Development Institute (JNC) and The United States Department of Energy (DOE) For Investigation of Measurements Methods for Scrap Materials with High Impurities***								
Comment:									
551	482	1/27/2000	1/27/2003	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 43 NDA Techniques at Ningyo
Title:	***Action Sheet 43 between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Design Studies and Development of NDA Techniques for In-Process and Waste Invention at the Ningyo Enrichment Plant***								
Comment:									
552	482	1/27/2000	1/27/2002	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 44 - Dry Reprocessing Methods
Title:	***Action Sheet 44 between The Japan Nuclear Cycle Development Institute (JN) and The United States Department of Energy (DOE) for A Joint Study of Safeguards Systems for Dry Reprocessing***								
Comment:									
553	482	1/27/2000	1/27/2003	Secondary DOE		523	Primary DOE	Arms Control and Nonproliferation	Action Sheet 45 Remote Monitoring System at PFPF
Title:	***Action Sheet 45 between The United States Department of Energy (DOE) and The Japan Nuclear Cycle Development Institute (JNC) for Development of the Integrated Remote Monitoring System at the Plutonium Fuel Production Facility in Japan***								
Comment:									

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597	492	8/22/2000	8/22/2005	Primary DOE			None	Nuclear Energy	Agreement for Nuclear Technologies
	Title:	***Agreement Between The Department of Energy of the United States of America and The Japan Nuclear Cycle Developments Institute in the Field of Nuclear Technologies.***							
	Comment:								
640	535	7/10/2002	7/10/2005	Primary DOE			None	Civilian Radioactive Waste Management	Nuclear Waste Management Organization Agreement (NUMO)
	Title:	***Agreement between the Department of Energy of the United States of America and the Nuclear Waste Management Organization of Japan in the Field of Radioactive Waste Management***							
	Comment:								
643	538	9/2/2002	9/2/2005	Primary DOE			None		Agreement bet. DOE and the Japan Atomic Energy Research Institute
	Title:	***Specific Memorandumm of Agreement between the Department of Energy of the United States of America and the Japan Atomic Energy Research Institute on Cooperation in the Field of Synchrotron Radiation Research***							
	Comment:								
653	548	3/19/2003	3/19/2008	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management
	Title:	***Agreement between the Department of Energy of the United States of America and the Japan Nuclear Cycle Development Institute in the Field of Radioactive Waste Management***							
	Comment:								
657	552	8/18/2000	8/18/2005	Amendment		263	None	Fusion Energy	Amendment V
	Title:	***Amendment V to the Agreement between the Japan Atomic Energy Research Institute and the United States Department of Energy on Cooperation in Doublet III Project***							
	Comment:								
8	42	5/2/1979	5/1/2005	Intergovernmental			None	Energy Research and Development	US/Japan Energy and Related Fields Agreement
	Title:	***Agreement between the Government of the United States of America and the Government of Japan on Cooperation in Research and Development in Energy and Related Fields***							
	Comment:	Maintaining and intensifying cooperation in research and development in energy and related fields.							
22	114	1/24/1983	5/1/2005	Broad		8	Intergovernmental	Fusion Energy	Fusion Energy
	Title:	***Exchange of Notes establishing the Cooperation in Fusion Research and Development***							
	Comment:	A cooperative program for the exchange of information, personnel and equipment, and special activities as may be mutually agreed, in various technical areas of fusion energy between DOE and the Ministry of Education, the STA, MONBUSHO, and the MITI, as established by an exchange of diplomatic notes and separate agreements within each organization. Remains in force as long as the Agreement between US-Japan on Cooperation in Research and Development in Energy and Related Fields remains in force.							
255	116	1/25/1983	5/1/2005	Primary DOE		22	Broad	Fusion Energy	Fusion Energy - MITI
	Title:	***Exchange of Letters establishing the MITI-DOE Cooperation in Fusion Research and Development***							
	Comment:	Remains in effect as long as the Exchange of Notes between USA-Japan on Cooperation in Fusion Research and Development							

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
256	117	1/25/1983	5/1/2005	Primary DOE		22	Broad	Fusion Energy	Fusion Energy - STA - Primary DOE agreement
		Title:	***Exchange of Letters establishing the STA-DOE Cooperation in Fusion Research and Development***						
		Comment:	Remains in effect as long as the Exchange of Notes between USA-Japan on Cooperation in Fusion Research and Development						
417	134	11/8/1983	5/1/2005	Secondary DOE		256	Primary DOE	Fusion Energy	Fusion Research and Development - JAERI
		Title:	***Implementing Arrangement between the Japan Atomic Energy Research Institute and the United States Department of Energy on Cooperation in Fusion Research and Development***						
		Comment:	Appoint coordinators to report to Fusion Committee and to cooperate in such areas as plasma-containment devices, such as tokamaks; joint research related to plasma physics; magnetic fusion concepts; magnetic systems for fusion devices; plasma engineering; fusion-reactor materials; fusion-systems engineering; environmental and safety aspects of fusion energy; plasma diagnostics and vacuum technology; and applications of fusion energy.						
463	133	11/8/1983	3/31/2004	Tertiary DOE		417	Secondary DOE	Fusion Energy	Annex 1 - First Wall and Blanket Structural
		Title:	***Annex I to Implementing Arrangement between Japan Atomic Energy Research Institute and U.S. Department of Energy on Cooperation in Fusion Research and Development U.S.-Japan Collaborative Testing of First Wall and Blanket Structural Materials with Mixed Spectrum Fission Reactors***						
		Comment:	JOINT IRRADIATION EXPERIMENTS AND EVALUATION OF RESULTS.						
466	210	6/11/1987	6/11/2001	Tertiary DOE		417	Secondary DOE	Fusion Energy	Annex 4 - Fusion - Fuel Processing
		Title:	***Annex IV to the Implementing Arrangement between the Japan Atomic Energy Research Institute and the United States Department of Energy on Cooperation in Fusion Research and Development for the DOE-JAERI Collaborative Program Technology for Fusion-Fuel Processing***						
		Comment:	Define, conduct, evaluate the joint operation/experiments on fusion fuel technology with TSTA at LANL for the purposes of developing and demonstrating fuel process technology for fusion power systems; developing/testing environmental/personnel protective systems for tritium handling; developing/testing/qualifying equipment and material for tritium services in the fusion energy program,						
471	270	1/11/1990	1/11/2005	Tertiary DOE		417	Secondary DOE	Fusion Energy	Annex 9 - Data Link
		Title:	***Annex IX to the Implementing Arrangement between the Japan Atomic Energy Research Institute and United States Department of Energy on Cooperation in Fusion Research and Development for the DOE-JAERI Collaboration on the Data Link***						
		Comment:	Establish the Data Link to facilitate rapid information exchanges between fusion researchers of the Parties through (1) code development and/or usage; (2) data analysis and/or theory/experiment comparison; (3) access to computers in home countries by visiting scientists for computations related to purpose of visit; (4) administration of the Data Link. VISITS: Yes DURATION: To Be Determined DOE/HQ CONTACT: Arthur Katz, ER-523, (301) 903-4932; FTS: 233-4932						
257	115	1/29/1983	5/1/2005	Primary DOE		22	Broad	Fusion Energy	Fusion Energy - Monbusho - Primary DOE
		Title:	***Exchange of Letters establishing the Monbusho-DOE Cooperation in Fusion Research and Development***						
		Comment:	Remains in effect as long as the Exchange of Notes between USA-Japan on Cooperation in Fusion Research and Development						
419	214	7/17/1987	7/19/2001	Secondary DOE		257	Primary DOE	Fusion Energy	Annex 1 - Irradiation Effects Utilizing Fission
		Title:	***Annex 1 to 01/25/83 exchange of letters between Japan Ministry of Education (Monbusho) and USDOE on cooperation in fusion R&D for collaboration in fundamental studies of irradiation effects in fusion materials utilizing fission***						
		Comment:	JOINT IRRADIATION AND EVALUATION EXPERIMENTS ON MATERIALS						

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
420	258	12/12/198	12/21/200	Secondary DOE		257	Primary DOE	Fusion Energy	Annex 2 - Data Link & Data Link Projects for

Title: ***Annex II to the January 25, 1983 Exchange of Letters between Monbusho of Japan and the Department of Energy of the United States on Cooperation in Fusion Research and Development Monbusho-DOE Collaboration on a data Link and Data Link Projects for Fusion***

Comment: STEERING COMMITTEE MEETING

602	497	1/17/2001	7/19/2007	Secondary DOE		257	Primary DOE	Fusion Energy	Amedment 4 - Annex 1 Fusion Research and Development

Title: ***Amendment 4 of Annex I to the DOE - Monbusho Exchange of Letters on Cooperation in Fusian Research and Development***

Comment:

259	228	10/16/198	5/1/2005	Primary DOE		8	Intergovernmental	Fossil Energy	Coal R&D - AIST and ANRE

Title: ***Implementing Arrangement between the Agency of Industrial Science and Technology and the Agency of Natural Resources and Energy of Japan and the United States Department of Energy in Coal Research and Development***

Comment: Establish comprehensive cooperation in the area of coal energy R&D in order to accelerate development of coal R&D efforts, i.e., coal liquefaction, coal gasification; materials and components for coal conversion and utilization; pollution control technology related to coal conversion and utilization.

262	48	8/24/1979	5/1/2005	Primary DOE		8	Intergovernmental	Fusion Energy	Fusion Energy/Coordinating Committee

Title: ***Exchange of Letters Establishing a Coordinating Committee on Fusion Energy***

Comment: Establish a Coordinating Committee on Fusion Energy to facilitate the coordination and implementation of cooperative activities in the area of fusion as well as to assure proper balance and to ensure the overall planning and oversight of such cooperative activities.

263	50	8/28/1979	8/28/2000	Primary DOE		8	Intergovernmental	Fusion Energy	Fusion Energy/Doublet III

Title: ***Agreement between the United States Department of Energy and the Japan Atomic Energy Research Institute on Cooperation in Doublet III Project***

Comment: Undertake experimental research on tokamak plasmas with doublet and dee-shaped cross-sections in the Doublet III, a tokamak facility, located in LaJolla, California.

264	58	11/11/197	5/1/2005	Primary DOE		8	Intergovernmental	High Energy Physics	High Energy Physics

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Education, Science and Culture of Japan on Cooperation in Field of High Energy Physics***

Comment: Establish a framework for cooperation in the field of high energy physics including research; accelerator and detector instrumentation R&D; the fabrication and subsequent use of new experimental devices and facilities. Remains in forces for the duration of the U.S.-Japan R&D in Energy and Related Fields Agreement signed on May 2, 1979

Country: ***Kazakhstan***

186	402	7/12/1996		Primary DOE			None	Science and Technology	Energy R&D and Tech exchange

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Science-Academy of Sciences of the Republic of Kazakhstan on Scientific Research and Development and Technology Exchange Programs***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
428	402	5/13/1997		Secondary DOE		186	Primary DOE	*Other - Remote Sensing	Remote Sensing Mission
	Title:	***Annex 1 - For the Conduct of the Remote Sensing Mission (AMPS) in the Republic of Kazakhstan***							
	Comment:								
529	474	12/19/200		Primary DOE			None	Arms Control and Nonproliferation	Decommissioning of the BN-350 Reactor
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Energy, Industry and trade of the Republic of Kazakhstan Concerning Decommissioning of the BN-350 Reactor***							
	Comment:								

Country: ***Korea, Republic of***

180	389	6/14/1996	6/14/2001	Primary DOE		11	Intergovernmental	Fusion Energy	Fusion Energy Research and Related Fields
	Title:	***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for Cooperation in the Area of Fusion Energy Research and Related Fields***							
	Comment:	Promote S&T cooperation in fusion energy research and related fields in order to enhance contributions. Remains in force for 5 years or until termination of the S&T Agreement, whichever occurs first.							
626	521	6/14/2001	6/14/2006	Secondary DOE		180	Primary DOE	Fusion Energy	Extension on the Implementing Arrangement between DOE and Korea
	Title:	***Agreement to Extend the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for Cooperation in the Area of Fusion Energy Research and Related Fields***							
	Comment:								
179	388	6/14/1996	6/14/2001	Primary DOE			None	Nuclear Energy	Cooperative Laboratory Relationship
	Title:	***Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***							
	Comment:	Cooperate in the field of peaceful uses of nuclear energy including such areas as: nuclear waste management; nuclear safety and environment; nuclear safeguards technology; basic sciences; education; health physics; environmental research related to nuclear technology, etc							
595	388	6/29/2000	6/29/2005	Secondary DOE		179	Primary DOE	Nuclear Energy	Annex 4 - Cintichem Process Technology (first project annex)
	Title:	***Annex 4 Joint Project on Cintichem Technology between the Department of Energy of the United States of America and the Korea Atomic Energy Research Institute under the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
608	503	5/16/2001	5/16/2006	Secondary DOE		179	Primary DOE	Nuclear Energy	Annex V - MOU between DOE and Ministry of Science and Technology of the Republic of Korea on I-NERI

Title: ***Annex V to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship on a Collaboration Project Supporting the International Nuclear Energy Research Initiative (INERI)***

Comment:

609	504	5/16/2001	6/14/2001	Secondary DOE		179	Primary DOE	Nuclear Energy	Amendment C to Annex III Participating Institutions to the MOU between DOE and Ministry Science and Technology

Title: ***Amendment C to Annex III - Participating Institutions to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***

Comment:

644	539	6/14/2001	6/14/2006	Secondary DOE		179	Primary DOE	Science and Technology	Extend and Amend MOU bet. DOE and MOST

Title: ***Agreement to Extend and Amend the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea for a Cooperative Laboratory Relationship***

Comment:

639	534	9/17/2002	9/17/2007	Primary DOE			None	Science and Technology	Safeguards Agreement

Title: ***Arrangement between the Department of Energy of the United States of America and the Ministry of Science and Technology of the Republic of Korea Concerning Research and Development in Nuclear Material Control, Accountancy, Verification, Physical Protection, and Advanced Containment and Surveillance Technologies for International Safeguards Applications***

Comment:

Country: ***Mexico***

12	41	6/15/1972		Intergovernmental			None	Science and Technology	Science & Technology

Title: ***Agreement Between the United States of America and Mexico for Scientific and Technical Cooperation***

Comment: Effected by Exchange of Notes Signed at Washington June 15, 1972

270	386	5/7/1996	5/7/2001	Primary DOE		12	Intergovernmental	Energy Research and Development	Energy Cooperation

Title: ***Agreement between the Department of Energy of the United States of America and the Secretariat of Energy of the United Mexican States for Energy Cooperation***

Comment: Develop a framework for cooperation to facilitate establishment of cooperative activities in research, development and commercialization to promote improved use of renewable energy and energy efficiency and fossil energy technologies, giving due consideration to environmental concerns, as well as to exchange, develop, and analyze energy strategies and regulatory criteria and to encourage the promotion of energy trade opportunities.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
483	437	6/10/1998	6/10/2001	Secondary DOE		270	Primary DOE	Energy Efficiency and Renewable Energy	Annex 1 - Renewable Energy

Title: ***Project Annex 1 Cooperation in the Field of Renewable Energy***

Comment: Project areas under discussion by SNL and CNEA (Mexico National Commission for Energy Savings)

484	438	6/10/1998	6/10/2001	Secondary DOE		270	Primary DOE	Energy Efficiency and Renewable Energy	Annex 2 - Energy Efficiency

Title: ***Project Annex 2 Cooperation in the Field of Energy Efficiency***

Comment: Project areas under discussion.

498	447	10/21/199	10/21/200	Secondary DOE		270	Primary DOE	Environmental Restoration and Waste Management	Annex 3 - Enviro Cooperation in hydrocarbons

Title: ***Project Annex 3 - Environmental Cooperation in the Field of Hydrocarbons***

Comment: Facilitating work between Mexico Institute of Petroleum and ORNL.

519	465	12/7/1999	5/7/2001	Secondary DOE		270	Primary DOE	Fossil Energy	Annex 4- Clean Fossil Energy Technologies

Title: ***Project Annex 4 Cooperation in the field of Clean Fossil Energy Technologies***

Comment: Annex is in force as long as the Agreement is in force.

610	505	5/7/2001	5/7/2006	Secondary DOE		270	Primary DOE	Science and Technology	

Title: ***Extension of the Agreement for Energy Cooperation between the Deparment of Energy of the United States of America and the Secretariat of Energy of the United Mexican States, and its Four***

Comment:

188	405	3/25/1985	3/25/2005	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Memorandum of Understanding (MOU) for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the National Institute of Nuclear Research of Mexico and the Los Alamos National laboratory of the United States of America***

Comment: Sister lab arrangement supporting Article IV of the NPT.

604	499	3/9/2001		Broad			None	Fifth Hemispheric Energy Ministers Meeting	Mexico Declaration

Title: ***Fifth Hemispheric Energy Ministers Meeting Mexio City, Mexico - March 9, 2001. Mexico Declaration - Energy: A Crucial Factor for Integration and Sustainable Development in the Hemisphere***

Comment:

Country: ***Morocco***

599	494	10/16/200	10/16/200	Primary DOE			None	Energy Efficiency and Renewable Energy	Agreement on Concerning Cooperation in Energy Efficiency and Renewable Energy

Title: ***Agreement Between The Department of Energy of the United States of America and The Ministry of Industry, Commerce, Energy and Mines of the Kingdom of Morocco Concerning Cooperation in Energy Efficiency and Renewable Energy***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
627	522	10/16/200	10/16/200	Secondary DOE		599	Primary DOE	Energy Efficiency and Renewable Energy	Project Annex I - EERE

Title: ***Project Annex I to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce, Energy and Mines of the Kingdom of Morocco Concerning Cooperation in Energy Efficiency and Renewable Energy***

Comment:

647	542	6/3/2002	6/3/2007	Secondary DOE		599	Primary DOE	Energy Efficiency and Renewable Energy	Project Annex 2 - Clean Energy Technologies

Title: ***Project Annex 2 to the Agreement between the Department of Energy of the United States of America and the Ministry of Industry, Commerce, Energy and Mines of the Kingdom of Morocco Concerning Cooperation in Clean Energy Technologies***

Comment:

Country: ***Nigeria***

48	76	7/23/1980		Statement of Intent			None	Energy Research and Development	Energy R&D

Title: ***Memorandum of Intent Concerning Energy Cooperation between the Government of the United States of America and the Government of the Federal Republic of Nigeria***

Comment: Exploit and use conventional sources of energy, develop effective machinery to monitor environmental effects of energy, develop and demonstrate technologies to utilize new and renewable energy sources, training in energy planning and technology and strengthen bilateral relations through increased official cooperation. Formal cooperation never establish

520	466	8/14/1999		Primary DOE			None	*Other - Energy Policy	MOU on Energy Policy

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Federal Ministry of Power and Steel of the Federal Republic of Nigeria on Energy Policy***

Comment:

Country: ***Pakistan***

49	339	9/24/1994		Statement of Intent			None	*Other - Climate Change	Climate Change

Title: ***Joint Statement of Intent between the Department of Energy of the United States of America and the Environment and Urban Affairs Division of the Islamic Republic of Pakistan***

Comment: Enhancing mutual environmental protection, in particular, controlling greenhouse gas emissions to limit potential adverse climate change impacts (Environment and Urban Affairs Division).

50	338	9/24/1994		Statement of Intent			None	Fossil Energy	Statement of Intent w/ Ministry of Petroleum and Natural Resources

Title: ***Statement of Intent between the Department of Energy of the United States of America and the Ministry of Petroleum and Natural Resources, Government of the Islamic Republic of Pakistan***

Comment: Promoting trade, investment and cooperation between U.S. & Pakistan (Min of Petroleum and Natural Resources) public and private-sector entities in the fields of fossil fuels (petroleum and minerals, including coal) and new and renewable energy resources, related infrastructure development, and in the exchange of experience and views on opportunities in these sectors.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
51	340	9/24/1994		Statement of Intent			None	Energy Efficiency and Renewable Energy	Statement of Intent w/ Ministry of Water and Power

Title: ***Statement of Intent between the Department of Energy of the United States of America and the Ministry of Water and Power of the Islamic Republic of Pakistan***

Comment: Promoting trade, investment and cooperation between the U.S. and Pakistan (Ministry of Water and Power) private and public sector entities in the fields of fossil and renewable energy, and in the exchange of experience and views on opportunities for improving energy efficiency and enhancing electricity policy.

Country: ***Palestinian Authority***

535	479	2/22/2000		Statement of Intent			None	Energy Research and Development	Energy Planning SOI

Title: ***Joint Statement of Intent between the Department of Energy of the United States of America and the Palestinian Energy Authority on Cooperation in the Field of Energy***

Comment:

Country: ***Peru***

512	458	6/17/1991	6/16/2001	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Arrangement for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the Peruvian Institute of Nuclear Energy and the Los Alamos National Laboratory***

Comment:

603	498	3/8/2001		Statement of Intent			None	Cooperation in the Field of Energy	Cooperation in the Field of Energy

Title: ***Joint Statement of Intent between the Department of Energy of the United States of America and The Ministry of Energy and Mines of the Republic of Peru on Cooperation in the Field of Energy***

Comment:

645	540	8/14/2001	8/14/2006	Primary DOE			None	Science and Technology	MOU - Cooperation in the Field of Energy

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Peru on Cooperation in the Field of***

Comment:

Country: ***Philippines***

195	403	6/19/1997	6/19/2002	Primary DOE			None	Information and/or Personnel Exchange	Info Exchange

Title: ***Memorandum of Agreement between the Department of Energy of the United States of America and the Department of Energy of the Republic of the Philippines for the Exchange of Energy***

Comment:

Country: ***Poland***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
13	224	9/28/1987	9/28/2002	Intergovernmental			None	Science and Technology	Science & Technology

Title: ***Agreement between the Government of the United States of America and the Government of the Polish People's Republic on Cooperation in Science and Technology and its Funding***

Comment: Develop, support and facilitate S&T cooperation on the basis of the principles of equality, reciprocity, and mutual benefit. Joint projects of mutual interest are funded by a fund contributed to by the two governments. Renewed last in 1997.

198	367	8/21/1995	8/21/2000	Primary DOE			None	Environmental Restoration and Waste Management	Environmental Restoration Hazardous Waste Mgmt

Title: ***Agreement for Technical Exchange and Cooperating between the Department of Energy of the United States of America and the Institute for Ecology of Industrial Areas of the Republic of Poland in the Area of Environmental Restoration and Hazardous Waste Management***

Comment: Study topics associated with the safe management of hazardous wastes, e.g., risks associated with human exposure to environmental contamination from chemical and heavy metals in soils; demonstration of technologies or methodologies for soil cleaning; and other areas determined by both parties.

Country: ***Romania***

513	459	3/29/1999	3/26/2004	Primary DOE			None	Arms Control and Nonproliferation	Sister Lab Arrangement

Title: ***Arrangement for Information Exchange and Cooperation in Area of Peaceful Uses of Atomic Energy between United States Department of Energy (DOE) and the Ministry of Industry and Commerce (MIC) - Romania***

Comment: Establishes the basis for a cooperative institutional relationship between the participants for the exchange of scientific and technological and other information regarding the peaceful uses of atomic

Country: ***Russian Federation***

203	395	9/16/1996	9/16/2001	Primary DOE		14	Intergovernmental	Environmental Restoration and Waste Management	Environmental Restoration and Waste Management

Title: ***Memorandum of Cooperation between the Department of Energy of United States of America and the Ministry of the Russian Federation on Atomic Energy in the Fields of Environmental Restoration and Waste Management***

Comment:

211	396	9/16/1996	9/16/2001	Primary DOE		14	Intergovernmental	Nuclear Energy	Nuclear Reactor Safety

Title: ***Memorandum of Cooperation between the United States of America and the Russian Federation in the Field of Civilian Nuclear Reactor Safety***

Comment: replaces MOU in Civilian Nuclear Reactor Safety signed 26 April, 1988

213	397	9/16/1996	9/16/2001	Primary DOE		14	Intergovernmental	Fusion Energy	Magnetic Confinement Fusion

Title: ***Memorandum of Cooperation between the Department of Energy of the United States of America and the Ministry of the Russian Federation on Atomic Energy in the Field of Magnetic Confinement Fusion***

Comment: Focus on Fusion science research and development

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436	397	9/16/1996	9/16/2001	Secondary DOE		213	Primary DOE	Nuclear Energy	Annex 1

Title: ***Annex 1 - List of Organizations that could participate***

Comment:

214	398	2/17/1997	2/17/2002	Primary DOE		14	Intergovernmental	*Other - High Energy and Nuclear Physics	Fundamental Properties of Matter

Title: ***Memorandum of Cooperation in the Field of Research on Fundamental Properties of Matter between the Department of Energy of the United States of America and the Ministry of Atomic Energy and the State Committee for Science & Technologies of the Russian Federation***

Comment: activities coordinated by the Joint Coordinating Committee for Research in the Fundamental Properties of Matter (FCC-FPM)

15	315	2/18/1993		Intergovernmental			None	Nuclear Energy	Disposition HEU Extracted From Nuclear Weapons

Title: ***Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning the Disposition of Highly Enriched Uranium Extracted from Nuclear Weapons***

Comment: Conversion of HEU extracted from nuclear weapons resulting from the reduction of nuclear weapons; the establishment of appropriate measures to fulfill the nonproliferation, physical protection, nuclear material accounting and control, and environmental requirements with respect to HEU and LEU.

202	394	9/16/1996	9/16/2001	Primary DOE			None	*Other - Fuel Cell Technology	RAFCO

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of the Russian Federation on Atomic Energy Regarding a Russian-American Fuel Cell Consortium***

Comment: Joint R&D work in fuel cell technology development

208	324	1/14/1994	1/14/2004	Intergovernmental			None	Environmental Safety Health	Radioactive Contamination Health & Environment

Title: ***Agreement between the Government of the United States of America and the Government of the Russian Federation on Cooperation in Research on Radiation Effects for the Purpose of Minimizing the Consequences of Radioactive Contamination on Health and the Environment***

Comment: Establish a framework for cooperation in research on radiation effects for the purpose of minimization of the consequences of radioactive contamination on health and the environment. DOE is the Executive Agent and is responisable for coordination of activities to implement the agreement.

210	360	6/16/1995		Primary DOE			None	Arms Control and Nonproliferation	Nonproliferation of Weapons/Weapons Expertise

Title: ***Memorandum of Agreement between the Department of Energy of the United States of America and the International Science and Technology Center in the Russian Federation for Cooperation in Approved Projects to Facilitate the Nonproliferation of Weapons and Weapons Expertise***

Comment: Facilitate cooperation under the ISTC agreement including the efforts to reduce or eliminate weapons of mass destruction in a safe and secure manner.

209	359	6/15/1995		Secondary DOE		210	Primary DOE	Fusion Energy	Annex 1 Weapons Expertise for the Globus-M

Title: ***Annex I to the Memorandum of Agreement between the Department of Energy of the United States of America and the International Science and Technology Center in the Russian Federation Concerning Cooperation in Approved Projects to Facilitate the Nonproliferation Weapons and Weapons Expertise for the Globus-M Project***

Comment: Cooperate to support the A.F. IOFFE Physics-Technical Institute in the completion of the GLOBUS-M project by participating in the modification (or reconstruction) of the experimental hall of the Institute in order to accommodate the new GLOBUS-M spherical tokamak device and the near-by supporting equipment, the buildings that house all the other device supporting systems, and the connections/conduits between the experimental hall and those buildings needed by the GLOBUS-M project.

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536	480	6/22/1999	6/22/2001	Secondary DOE		210	Primary DOE	Fusion Energy	ISTC Annex III -Advanced Diagnostics equipment for Spherical Tokamak Globus-M
	Title:	***Annex III to the Memorandum of Agreement between the Department of Energy of the United States of America and the International Science and Technology Center in the Russian Federation Concerning Cooperation in Approved Projects to Facilitate the Nonproliferation of Weaons and Weapons Expertise for Advanced Diagnostics Equipment for Sapherical Tokamak Globus-M (ISTC Project No. 1126)***							
	Comment:								
435	328	3/16/1994		Primary DOE			None	Nuclear Energy	Replacement of Russian Pu Production Reactors
	Title:	***Protocol of Meeting between the United States and the Russian Federation on the Replacement of Russian Plutonium Production Reactors***							
	Comment:	Plan for replacement of plutonium production reactors with alternate energy sources.							
515	461	9/22/1998	9/22/2003	Intergovernmental			None	Arms Control and Nonproliferation	Nuclear Cities Initiative
	Title:	***Agreement between the Government of the United States of America and the Government of the Russian Federation on the Nuclear Cities Initiative***							
	Comment:	DOE is the US Executive Agent for the carrying out provisions of the agreement. Ministry of the Russian Federation for Atomic Energy is the Executive agent for Russia							
518	464	3/24/1999	3/24/2004	Primary DOE			None	Science and Technology	MOU w/ Russian Academy of Sciences
	Title:	***Memorandum of Understanding between the Department of Energy of the United States of America and the Russian Academy of Sciences on Cooperation in Science and Technology***							
	Comment:								
565	488	5/15/2000	3/24/2004	Secondary DOE		518	Primary DOE	Environmental Restoration and Waste Management	DOE/RAS Implementing Arrangement 1
	Title:	***Implementing Arrangement #1 Under the Memorandum of Understanding between the United States Department of Energy and the Russian Academy of Sciences on Cooperation in Science and Technology - Geologic Analogues, Migration and Accumulation of Radionuclides in Geologic Media***							
	Comment:								
590	488	5/16/2000	9/20/2002	Tertiary DOE		565	Secondary DOE	Environmental Restoration and Waste Management	Appendix D - Uranium Mass Transport Phenomena
	Title:	***Appendix D Implementing Arrangement #1 of the U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Uranium Mass Transport Phenomena in Fractured Welded Tuffs***							
	Comment:								
593	488	5/18/2000	9/30/2003	Tertiary DOE		565	Secondary DOE	Civilian Radioactive Waste Management	Appendix G - Interaction of Actinides and Fission Products
	Title:	***Appendix G Implementing Arrangement #1 of the U.S. Department of Energy/Russian Academy of Science Memorandum of Understanding The Interaction of Actinides and Fission Products with Environmental Matrices***							
	Comment:								

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
594	488	5/18/2000	9/30/2003	Tertiary DOE		565	Secondary DOE	Civilian Radioactive Waste Management	Appendix H - Actinide Speciation

Title: ***Appendix H Implementing Arrangement #1 of the U.S. Department of Energy/Russian Academy of sciences Memorandum of Understanding Actinide Speciation in the Environment to Support Safety Assessment of Geologic Repositories and for the Remediation of Contaminated Sites***

Comment:

566	489	5/15/2000	3/24/2004	Secondary DOE		518	Primary DOE	Environmental Restoration and Waste Management	DOE/RAS Implementing Arrangement 2

Title: ***Implementing Arrangement #2 Under the Memorandum of Understanding between the United States Department of Energy and the Russian Academy of Sciences on Cooperation in Science and Technology - Risk Assessment and Advanced Modeling Regarding Geologic Disposal***

Comment:

589	489	6/2/2000	9/30/2003	Tertiary DOE		566	Secondary DOE	Civilian Radioactive Waste Management	Appendix C - Contaminant Transport Processes in Unsaturated Rocks

Title: ***Appendix C Implementing Arrangement #2 of the U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Interdisciplinary Fundamental Research to Further Develop the Methods of Describing and Modeling Contaminant Transport Process in Unsaturated Rocks***

Comment:

591	489	5/31/2000	9/30/2002	Tertiary DOE		566	Secondary DOE	Environmental Restoration and Waste Management	Appendix D- Annex A - Chara. Of Contaminated Territories

Title: ***Annex A of Appendix D Implementing Arrangement #2 of the U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Characterization of Contaminated Territories, Monitoring Network Optimization, and Cost Minimization***

Comment:

592	489	5/31/2000	9/30/2002	Tertiary DOE		566	Secondary DOE	Environmental Restoration and Waste Management	Appendix D - Annex B - Uncertainty Assessment

Title: ***Annex B of Appendix D Implementing Arrangement #2 under the DOE-RAS Memorandum of Understanding Uncertainty Assessment Through Incorporation of Mathematical Geology in Development of Inverse Flow and Transport Models***

Comment:

605	500	4/25/2001	4/25/2004	Secondary DOE		518	Primary DOE	Science and Technology	Appendix K w/ the Russian Academy of Sciences

Title: ***Appendix K Under Implementing Arrangement #1 of the Memorandum of Understanding Between the U.S. Department of Energy and Russian Academy of Sciences on Cooperation in Science and Technology***

Comment:

606	501	10/1/2000	10/1/2002	Secondary DOE		518	Primary DOE	Uranium Mass Transport Phenomena in Fractured Welded Tuffs	Appendix D of Implementing Arrangement #1w/ Russian Academy of Sciences MOU

Title: ***Appendix D Implementing Arrangement #1 of The U.S. Department of Energy/Russian Academy of Sciences Memorandum of Understanding Uranium Mass Transport Phenomena in Fractured Welded Tuffs***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
52	302	3/18/1992		Statement of Intent			None	Information and/or Personnel Exchange	Electric Power Technologies
	Title:	***U.S.-Russia Task Force on Cooperation in Electric Power Technologies Joint Statement of Intent***							
	Comment:	Exchange information on developments in the electric power industries and encourage more extensive contacts among experts in this field in both countries.							
537	481	7/24/1998	7/24/2003	Intergovernmental			None	Arms Control and Nonproliferation	Plutonium Management
	Title:	***Agreement between the Government of the United States of America and the Government of the Russian Federation on Scientific and Technical Cooperation in the Management of Plutonium that has been withdrawn from Nuclear Military Programs***							
	Comment:	DOE is the Executive Agent for the US. The agreement establishes the U.S.-Russian Joint Steering Committee on Plutonium Management							
619	514	6/30/2000	6/30/2005	Secondary DOE		607	Primary DOE	Civilian Radioactive Waste Management	Protocol extending the agreement between DOE and Russia
	Title:	***Protocol Extending the Agreement between the Department of Energy of the United States of America and the Federal Nuclear, and Radiation Safety Authority of Russia for Cooperation on Enhancing the Safety of Russian Nuclear Fuel Cycle Facilities and Research Reactors***							
	Comment:	Extending the agreement mention above for five years until June 30, 2005.							
641	536	6/26/200	6/30/2005	Secondary DOE		607	Primary DOE	Arms Control and Nonproliferation	Extension bet. DOE federal Nuclear and Radiation Safety Authority of Russia
	Title:	***Protocol Extending the Agreement between the Department of Eneryg of the United States of America and the Federal Nuclear and Radiation Safety Authority of Russia to Cooperate on National Protection, Control and Accounting of Nuclear Materials***							
	Comment:								
636	531	4/23/2002		Statement of Intent			None	Science and Technology	Joint Statement of Intent between DOE and Dubna
	Title:	***Joint Statement of Intent between the Department of Energy of the United States of America and the Joint Institute for Nuclear Research at Dubna***							
	Comment:								
658	553	5/8/2002		Primary DOE			None	*Other - Purchases of Pu-238 for Peaceful Purposes	Purchases of Pu-238 for Peaceful Purposes
	Title:	***Joint Announcement by the United States Department of Energy and the Russian Federation Ministry for Atomic Energy Concerning Continued Purchases of Pu-238 for Peaceful Purposes***							
	Comment:								
659	554	7/16/2001	7/16/2006	Secondary DOE		210	Primary DOE	Civilian Radioactive Waste Management	Annex VI
	Title:	***Annex VI to the Memorandum of Agreement between the Department of the United States of America and the International Science and Technology Center in the Russian Federation Concerning Implementation of Projects of the Office of Civilian Radioactive Waste Management***							
	Comment:								

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All In Force Bilateral Agreements

ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: ***Senegal***

479	433	4/2/1998		Statement of Intent		None	Energy Research and Development		SOI - Energy R&D

Title: ***Memorandum of Understanding between the Republic of Senegal and the United States of America for Cooperation on Energy Policy, Science and Technology, and Research and Development***

Comment:

516	462	3/19/1999	3/19/2004	Primary DOE		None	Energy Research and Development		Energy Policy, S and T, and R and D

Title: ***Agreement between the Department of Energy and the Ministry of Energy, Mines and Industry of the Republic of Senegal on Cooperation in Energy Policy, Science and Technology, Research and Development***

Comment: The objective of this Agreement is to facilitate and establish cooperative activities by the Parties.

Country: ***South Africa***

20	368	12/4/1997	12/4/2022	Intergovernmental		None	Nuclear Energy		Peaceful Uses of Nuclear Energy

Title: ***Agreement for Cooperation between the United States of America and the Republic of South Africa Concerning Peaceful Uses of Nuclear Energy***

Comment: Cooperate in the development, use and control of peaceful uses of nuclear energy which must be undertaken with a view to protecting the international environment from radioactive, chemical and thermal contamination. Agreement was signed on 8/25/95 ratified by exchange of diplomatic notes on 12/4/97.

230	369	8/25/1995		Primary DOE		None	Energy Research and Development		Sustainable Energy Development Committee

Title: ***Terms of Reference on the Sustainable Energy Development Committee of the U.S. - South Africa Binational Commission***

Comment:

231	371	8/25/1995		Primary DOE		None	Energy Research and Development		Sustainable Development Resource Center

Title: ***Memorandum of Understanding between the World Wildlife Fund-South Africa, EarthKind International, U.S. Department of Energy and U.S. Agency for International Development on Creating the Sustainable Development Resource Center***

Comment: Cooperate on the creation of the Sustainable Development Resource enter to advance policies and programs on the use of renewable energy and energy efficiency technologies and participation by nongovernmental organization in the decision making process. Other signatories are EarthKind Intl (Jan Hartke) and USAID (Larry Byrne)

232	372	8/25/1995		Primary DOE		None	Energy Efficiency and Renewable Energy		Renewable and Energy Efficiency Technologies

Title: ***Memorandum of Understanding***

Comment: Promotion of renewable energy and energy efficient technologies as a cost-effective means of increasing access to energy of the majority of South Africa disadvantaged population (w/USAID as a partner).

233	374	8/25/1995		Primary DOE		None	Energy Efficiency and Renewable Energy		Electrification of Rural Clinics (Cape Town)

Title: ***Memorandum of Understanding between Sandia National Laboratories of Albuquerque New Mexico, USA and the Independent Development Trust Cape Town, Republic of South Africa***

Comment: Sandia National Lab, as signatory of this MOU, has agreed to co-fund the Independent Development Trust model clinic electrification program and to provide other technical assistance as agreed by mutual consent.

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
234	381	12/5/1995	12/5/2000	Primary DOE			None	Energy Research and Development	Energy Policy, S&T and Development

Title: ***Implementing Agreement between the United States Department of Energy and the Department of Mineral and Energy Affairs of South Africa on Collaboration on Energy, Policy, Science, Technology and Development***

Comment: Facilitate and establish cooperative activities in energy policy, science, technology, development and commercialization activities in such areas as: fossil energy, including clean coal; energy planning, efficiency, renewable energy; environmental management; environment enhancing energy technologies; and private power project development

55	423	8/25/1995		Statement of Intent			None	Information and/or Personnel Exchange	Energy Information Exchange

Title: ***Joint Statement of Intent between the Department of Energy of the United States of American and the Department of Mineral and Energy Affairs of the Republic of South Africa on an Energy Information Exchange***

Comment:

56	370	8/25/1995		Statement of Intent			None	Energy Research and Development	Energy Policy, S&T and Development

Title: ***Joint Statement of Intent between the Department of Energy of the United States of American and the Department of Mineral and Energy Affairs of the Republic of South Africa on Energy Policy, Science and Technology, and Development***

Comment: Facilitate joint activities related to energy policy, S&T, development and commercialization in an environmentally and economically sound manner.

57	373	8/25/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Renewable Energy (Guguletu Township)

Title: ***Joint Statement of Intent for Integrated Industrial/Educational Development in Guguletu Township between the United States Department of Energy, United States Department of Energy National Laboratories, and the Guguletu RDP Forum***

Comment: Establishment of a light industrial part in Guguletu Township.

58	375	8/25/1995		Statement of Intent			None	Energy Efficiency and Renewable Energy	Renewable Energy (The Csir, South Africa)

Title: ***Statement of Intent on Renewable Energy Technologies between the National Renewable Energy Laboratory, U.S.A. and Sandia national Laboratories, U.S.A. and the CSIR (Council for Scientific and Industrial Research), Republic of South Africa***

Comment: NREL and Sandia, by being signatories of this Statement, have agreed to exchange experience and views on opportunities for the appropriate utilization of renewable energy technologies with The Csir, Republic of South Africa. Witnessed by Secretary O'Leary.

59	383	12/5/1995		Statement of Intent			None	Fossil Energy	Mitigation of Greenhouse Gases

Title: ***Statement of Intent concerning Cooperation in Sustainable Energy Development and the Mitigation of Greenhouse gases between the Republic of South Africa and the United States of America***

Comment: Investigate pilot studies the feasibility of the development of projects which could achieve additional mitigation of climate change by addressing anthropogenic emissions by sources and removal by sinks in an environmentally sound and socially and economically equitable fashion through deployment of greenhouse gas mitigation technologies; education/training programs; diversification of energy sources; conservation, restoration and enhancement of natural carbon sinks, etc.

60	382	12/5/1995		Statement of Intent			None	Energy Research and Development	South Africa/Provincial Gov'ts Cooperation Agreement - Statement of Intent

Title: ***Cooperative Agreement between Provincial Governments of the Republic of South Africa on Regional Cooperation in Energy***

Comment: Intention to cooperate in a manner which will facilitate joint activities related to energy development in an environmentally and economically sound way with the following provincial governments of South Africa: Province of the Free State; Northern Cape Province; Eastern Cape Province

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: ***Spain***

100	404	9/15/1997	9/15/2007	Primary DOE			None	Environmental Safety Health	Research on Radiological Evaluations

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Industry and Energy of the Kingdom of Spain on Cooperation in Research on Radiological Evaluations***

Comment:

307	404	9/15/1997	9/15/2007	Secondary DOE		100	Primary DOE	Environmental Safety Health	Annex 1

Title: ***Project Annex 1 - cooperation on research in radiological evaluations***

Comment: Related to radioactive waste management.

5	171	12/12/198		Primary DOE			None	Science and Technology	Science & Technology

Title: ***Agreement between the United States Department of Energy and the United States-Spain Joint Committee for Scientific and Technological Cooperation***

Comment: Establish responsibilities, guidelines and procedures for evaluating, funding and coordinating research proposals, projects and related activities in the field of energy selected and funded by the US-Spain Joint Committee for S&T Cooperation.

596	491	7/15/2000	7/15/2006	Primary DOE			None	Energy Research and Development	MOU for Energy Cooperation

Title: ***Memorandum of Understanding Between The Ministry of Science and Technology of the Kingdom of Spain and The Department of Energy of the United States of America Concerning Cooperation in Energy***

Comment:

Country: ***Sweden***

218	235	2/11/1988		Primary DOE			None	*Other - Classified	Subject and Umbrella contents are classified

Title: ***Subject and Umbrella contents are classified***

Comment: Description not available in History

580	442	10/23/199	10/23/200	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management

Title: ***Agreement between the United States Department of Energy and the Swedish Nuclear Fuel and Waste Management Company Concerning a Cooperative Program in the Field of Radioactive waste Management***

Comment:

Country: ***Switzerland***

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
225	418	12/23/199	12/23/200	Primary DOE			None	Civilian Radioactive Waste Management	Radioactive Waste Management

Title: ***Agreement between the Department of Energy of the United States of America and the National Cooperative for the Disposal of Radioactive Waste in Switzerland in the Field of Radioactive Waste Management***

Comment: Auto extension for 5 yr. Periods.

Country: ***Thailand***

227	400	3/20/1997		Primary DOE			None	Arms Control and Nonproliferation	Lab-to-Lab arrangement

Title: ***Arrangement for the Exchange of Technical Information and for Cooperation in the Field of Peaceful Uses of Nuclear Energy between the Office of Atomic Energy for Peace of Thailand and the United States Department of Energy***

Comment: Open ended.

538	400	3/6/2000		Secondary DOE		227	Primary DOE	Arms Control and Nonproliferation	Action Sheet 1 - Preliminary Safety Anaysis Report

Title: ***Action Sheet 1 between the Office of Atomic Energy for Peace of Thailand and the United States Department of Energy for Preliminary Safety Analysis Report Review***

Comment:

Country: ***Turkey***

624	519	3/20/2002	3/20/2007	Primary DOE			None	Science and Technology	Cooperation in Energy Technology

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Energy and Natural Resources of the Republic of Turkey for Cooperation in Energy Technology***

Comment:

625	520	3/20/2002	3/20/2002	Secondary DOE		624	Primary DOE	Science and Technology	Annex 2 - Cooperation in the Field of Coal and Power Systems

Title: ***Annex 2 to the Implementing Arrangement between the Department of Energy of the United States of America and the Ministry of Energy and Natural Resources of the Republic of Turkey for Cooperation in the Field of Coal and Power Systems***

Comment:

Country: ***Ukraine***

507	454	4/26/1996		Intergovernmental			None	*Other - Radioactive Waste	Chornobly Center

Title: ***Memorandum of Understanding on Participation In and Support of the Activities of the International Chornobyl Center on Nuclear Safety, Radioactive Waste and Radioecology***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
508	455	7/22/1998	7/22/2003	Intergovernmental			None	*Other - Radioactive Waste	Int'l Radioecology Lab

Title: ***Agreement between the Government of the United States of America and the Government of Ukraine Concerning the International Radioecology Laboratory of the International Chornobly Center on Nuclear Safety, Radioactive Waste and Radioecology***

Comment: Department of Energy is the Executive Agent

510	457	5/6/1998	5/4/2028	Intergovernmental			None	Nuclear Energy	US-Ukraine PNC

Title: ***Agreement for Cooperation between the United States of America and Ukraine Concerning Peaceful Uses of Nuclear Energy***

Comment:

54	330	4/8/1994		Statement of Intent			None	Nuclear Energy	Shutdown Chernobyl Nuclear Power Plant

Title: ***Joint Statement About Paths to the Soonest Possible Shutdown of the Chernobyl Nuclear Power Plant***

Comment: Undertake near-term joint analysis of options for earliest possible closure of the Chernobyl power plant.

Country: ***United Kingdom***

41	364	7/25/1995		Statement of Intent			None	Environmental Restoration and Waste Management	Nuclear Clean-Up

Title: ***Heads of Agreement for Cooperation Between the United States Department of Energy and the United Kingdom Department of Trade and Industry on their Perspective Program for Nuclear Clean-up***

Comment: Cooperate, through sharing of information, on similar issues associated with nuclear decommissioning and clean-up

42	390	9/5/1996		Statement of Intent			None	Environmental Restoration and Waste Management	Environmental Restoration and Waste Management

Title: ***Statement of Intent between the United States Department of Energy and the United Kingdom Department of Trade and Industry***

Comment: Establish framework for cooperation in R&D of technologies for the treatment, packaging, disposal of aluminum-based spent nuclear fuel.

598	493	11/6/2000	11/6/2010	Primary DOE			None	Energy Research and Development	MOU on Energy Research and Development

Title: ***Memoruandum of Understanding Between The Department of Energy of the United States of America and The Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland on Collaboration in Energy Research and Development***

Comment: Provides for cooperation in Fossil Energy, Energy Efficiency, Renewable Energy and the waste-related management and the environment.

634	529	11/17/200	11/17/200	Secondary DOE		598	Primary DOE	Environmental Management	AEA Technology plc

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and AEA Technology plc Under the Memorandum of Understanding on Energy R&D between the Department of Energy of the United States of America and the Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
611	506	9/17/2001	9/17/2006	Primary DOE			None	Nuclear Verification Technologies	MOU between DOE and the Department of Trade and Industry of the United Kingdom

Title: ***Memorandum of Understanding between the Department of Energy of the United States of America and the Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland Concerning the Development and Implementation of Nuclear Verification Technologies***

Comment:

637	532	7/25/2002	7/25/2007	Primary DOE			None	Science and Technology	Implementing Agreement between DOE and Great Britain

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland for Cooperation in Research and Development of Chemical and Biological Weapons Detection and Protection-Related Technologies***

Comment:

638	533	7/3/2002	7/3/2007	Primary DOE			None	Science and Technology	Gov't to Gov't agreement between US and Great Britain

Title: ***Agreement between the Government of the United States of America and the Government of the United Kingdom of Great Britain and Northern Ireland for Cooperation in Research and Development of Weapons Detection and Protection-Related Technologies***

Comment:

652	547	3/10/2003	3/10/2008	Primary DOE			None	Fossil Energy	Cooperation in the Field of Fossil Energy

Title: ***Implementing Arrangement between the Department of Energy of the United States of America and the Department of Trade and Industry of the United Kingdom of Great Britain and Northern Ireland to Cooperate in the Field of Fossil Energy Technology***

Comment:

143	278	6/11/1990	6/11/2000	Primary DOE			None	Energy Research and Development	Energy R&D

Title: ***Memorandum of understanding between the U.S. Department of Energy and the Department of energy of the United Kingdom of Great Britain and Northern Ireland on collaboration in energy research and development***

Comment: To continue and maximize cooperation in energy research and development.

Country: ***Uzbekistan***

628	523	3/12/2002		Primary DOE			None	Arms Control and Nonproliferation	Proliferation of Nuclear Materials and Technologies

Title: ***Agreement between the Department of Energy of the United States of America and the Ministry of Foreign Affairs of the Republic of Uzbekistan Concerning Cooperation in the area of Prevention of Proliferation of Nuclear Materials and Technologies***

Comment:

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description

Country: ***Venezuela***

228 408 10/13/199 10/13/200 Primary DOE None Energy Research and Development Energy Cooperation

Title: ***Agreement for Energy Cooperation between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela***

Comment: Supersedes the March 6, 1980 Energy R&D agreement

443 73 7/10/1980 10/13/200 Secondary DOE 228 Primary DOE Fossil Energy Project Annex 1 - Crude Characterization

Title: ***Project Annex I between the Department of Energy of the United States of America and the Ministry of Energy and Mines of Venezuela for the Joint Characterization of Heavy Crude Oils***

Comment: Exchange published technical information and jointly modify or develop new techniques for the characterization of heavy crude oil and heavy ends.

444 82 9/29/1980 10/13/200 Secondary DOE 228 Primary DOE Fossil Energy Project Annex 4 - Enhanced Oil Recovery Thermal Processes

Title: ***Project Annex IV between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of Enhanced Oil Recovery Thermal Process***

Comment: Cooperate in the application of additives to steam injection for the recovery of heavy oil thereby further efforts on the understanding of the thermal processes and the reservoir and its fluids where these processes are conducted.

445 137 3/14/1984 10/13/200 Secondary DOE 228 Primary DOE Fossil Energy Project Annex 10 - Training of Petroleum Engineers

Title: ***Project Annex X between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela for On-Site Training of Petroleum Engineers***

Comment: Training of Venezuelan petroleum engineers at Elks Hills Naval Petroleum Facility.

446 264 2/16/1989 10/13/200 Secondary DOE 228 Primary DOE Fossil Energy Project Annex 14 - Exchange of Energy-Related Personnel

Title: ***Project Annex XIV between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela for the Exchange of Energy-Related***

Comment: DOE and MEMV shall cooperate in using their good offices and taking all reasonable steps to facilitate the exchange of energy-related personnel between Venezuela and the U.S. in the areas of fossil

447 333 4/26/1994 10/13/200 Secondary DOE 228 Primary DOE Fossil Energy Project Annex 15 - Oil Recovery Information and Tech. Transfer

Title: ***Implementing Agreement XV to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of "Oil Recovery Information and Technology Transfer"***

Comment: Evaluate past and ongoing improved oil recovery projects in US and Venezuela; Data base compilation and exchange

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ID	File#	Start Date	End Date	Agreement Type	Legally Binding	Parent ID	Parent Type	Subject	Brief Description
499	448	8/15/1995	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Annex 16 - Oil and Petrochemical Ecology and Environmental Research

Title: ***Implementing Agreement XVI to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of Oil and Petrochemistry Ecology and Environmental Research***

Comment: Information exchange, biotechnology update and analysis of industrial and environmental trends.

500	449	9/7/1995	10/13/200	Secondary DOE		228	Primary DOE	Fossil Energy	Annex 17 - Drilling Technology

Title: ***Implementing Agreement XVII to the Memorandum of Understanding between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Republic of Venezuela in the Area of Drilling Technology***

Comment: Exchange information and training of personnel on drilling technologies for more efficient and cost-effective methods drilling.

633	528	8/9/2001	8/9/2006	Secondary DOE		228	Primary DOE	Fossil Energy	Project Annex No. XVIII - Natural Gas Technologies

Title: ***Project Annex No. XVIII to the Agreement for Energy Cooperation between the Department of Energy of the United States of America and the Ministry of Energy and Mines of the Bolivarian Republic of Venezuela in the area of Natural Gas Technologies***

Comment:

United States Department of Energy
Agreement Listing

Listing of Agreements Under the Aegis of: IEA

Exp Date	DOE Office	Agreement #	Title
1/2050	EE	000011	International Energy Agency Implementing Agreement on Solar Heating and Cooling Program
9/30/94	EE	000012	International Energy Agency Implementing Agreement on Solar Heating and Cooling Program - Annex 12: Building Energy Analysis and Design Tools for Solar Applications
8/31/94	EE	000013	International Energy Agency Solar Heating and Cooling Program - Annex 13: Advanced Low Energy Buildings
1/2050	EE	000018	International Energy Agency Hydrogen Agreement: Implementing Agreement for a Program of Research and Development on the Production and Utilization of Hydrogen
12/31/94	EE	000024	International Energy Agency Implementing Agreement on Solar Heating and Cooling Program
1/1/2050	EE	000025	International Energy Agency Annex 1: Improvement of Thermohydraulic Design and Performance in Heat Transfer Equipment
1/1/2050	EE	000026	International Energy Agency Implementing Agreement on Improved Structural Design and Reliability of Heat Transfer Equipment
1/1/2050	EE	000030	International Energy Agency Implementing Agreement for Cooperation in R&D of Wind Turbine Systems
1/1/2050	EE	000033	International Energy Agency Implementing Agreement - Annex 1: Combustion System Modeling and Diagnostics
1/1/2050	EE	000034	International Energy Agency Implementing Agreement - Annex 2: Optimal Design of Heat Exchanger Networks
1/1/94	EE	000039	International Energy Agency Implementing Agreement for a Program of R&D on Advanced Heat Pump Systems
1/1/2050	EE	000045	International Energy Agency Implementing Agreement on High Temperature Materials for Automotive Engines

United States Department of Energy
Agreement Listing

Listing of Agreements Under the Aegis of: IEA

Exp Date	DOE Office	Agreement #	Title
1/1/2050	EE	000049	International Energy Agency Implementing Agreement for a Program of Research and Development on Energy Conservation in Buildings and Community Systems
1/1/2050	EE	000053	International Energy Agency Implementing Agreement for Pulp and Paper Industry
1/1/2050	EE	000055	International Energy Agency Alcohol and Alcohol Blends as Motor Fuel (Umbrella Agreement) including Annex 1: A Common Study
1/1/2050	EE	000058	International Energy Agency Implementing Agreement for Program on Bioenergy Research and Development
1/1/2050	ER	000107	International Energy Agency Implementing Agreement for a Program of Research and Development on Superconducting Magnets for Fusion Power
7/31/95	ER	000108	International Energy Agency Implementing Agreement on a Cooperative Fusion Program for the Investigation of Toroidal Physics in, and Plasma Technologies of, Tokomaks with Poloidal Divertors
7/31/95	ER	000109	International Energy Agency Implementing Agreement - Annex I: Joint Fusion Work on the Investigation of Toroidal Physics and Plasma Technologies in Asdex-Upgrade
12/31/97	ER	000110	International Energy Agency Implementing Agreement for Fusion Program of R&D on Plasma Wall Interaction in Textor
10/21/94	ER	000115	International Energy Agency Implementing Agreement for Program of R&D on Radiation Damage in Fusion Materials
10/21/95	ER	000116	International Energy Agency Implementing Agreement for Program of R&D on Radiation Damage on Fusion Materials - Annex 2: Experimentation on Radiation Damage in Fusion Materials
1/14/96	ER	000118	International Energy Agency Implementing Agreement on Fusion Cooperation Among the Three Large Tokomak Facilities (JET, JT-60, and TFTR)

United States Department of Energy
Agreement Listing

Listing of Agreements Under the Aegis of: IEA

Exp Date	DOE Office	Agreement #	Title
4/2/2000	ER	000119	International Energy Agency Implementing Agreement - Annex 2: Joint Fusion Work on the Investigation of Plasma Confinement Physics and Technology in Reversed Field Pinches (RFP)
4/2/2000	ER	000123	International Energy Agency Implementing Agreement for a Fusion Program of R&D on Reversed Field Pinches (RFP)
4/2/2000	ER	000124	International Energy Agency Annex 1: Coordination of Fusion R&D Work on Research Field Pinches (RFP)
7/6/97	ER	000266	International Energy Agency Implementing Agreement on a Cooperative Program on Environmental Safety and Economic Aspects of Fusion Power
1/1/2050	FE	000154	International Energy Agency Coal Research Service Center Project
1/1/2050	FE	000159	International Energy Agency Implementing Agreement for Performance of Research, Development and Demonstration on Enhanced Recovery of Oil
1/1/2049	FE	000181	International Energy Agency Implementing Agreement for Program of Research on Coal Liquid Mixtures
6/21/90 6/20/95			International Energy Agency Implementing Agreement for Cooperative Programme for Assessing the Impacts of High-Temperature Superconductivity on the Electric Power Sector

DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT MULTI-LATERAL AGREEMENTS
All Active Agreements

Term of Agreement	Countries	Type of Agreement	Agreement Subject Area	DOE Record #
3/20/74 9/16/96	Australia, Austria, Belgium, Canada, Denmark, Commission of the Euratom, Finland, France, Germany (unified), Greece, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom	Umbrella	Nuclear data and computer programs	90
11/18/74 Indefinite	Australia, Austria, Belgium, Canada, Denmark, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Spain, Sweden, Switzerland, Turkey, United Kingdom	Umbrella/annex	Establishment of International Energy Program through implementation of an International Energy Agency	
1/1/75 Indefinite	Australia, Austria, Belgium, Canada, Denmark, Commission of the Euratom, Finland, Germany (unified), Italy, Japan, Netherlands, Spain, Sweden, United Kingdom	Implementing/ project	Coal research	154
7/28/75 Indefinite	Australia, Belgium, Canada, Denmark, Finland, Germany (unified), Greece, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, Switzerland, Turkey, United Kingdom	Implementing/ project	Energy conservation in buildings and community systems	49
11/20/75 Indefinite	Austria, Belgium, Germany, Italy, Netherlands, Spain, Sweden, Turkey, United Kingdom	Implementing/ project, annex	Establishment of the Coal Technical Information Service	154
12/31/75 Indefinite	Australia, Austria, Belgium, Canada, Denmark, Finland, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Spain, Sweden, United Kingdom (DOI/USGS, DOE and BLM)	Establishment of Coal Research Service	This Agreement incorporates four previous implementing agreements on: Mining Technology Clearinghouse (DOI BLM), Coal Economic Assessment Services (DOE), Coal Technical Information Services (DOE, DOI/ USGS), and World Coal Resources and Reserves Data Bank (DOI/USGS)	154
12/20/76 Indefinite	Australia, Austria, Belgium, Canada, Commission of the Euratom, Denmark, Germany (unified), Greece, Italy, Japan, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, United Kingdom	Implementing/ project, annexes	Solar heating and cooling systems	11

DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT MULTI-LATERAL AGREEMENTS
All Active Agreements

Term of Agreement	Countries	Type of Agreement	Agreement Subject Area	DOE Record #
3/16/77 Indefinite	Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom	Implementing/ project, annex	Energy conservation/ emissions reduction in combustion	
3/16/77 Indefinite	Austria, Germany, Sweden, Switzerland	Implementing/ project, annex	Energy conservation through energy cascading	
3/16/77 Indefinite	Canada, Germany (unified), Italy, Japan, Norway, Sweden, Switzerland, United Kingdom	Annex	Combustion system modeling and diagnostics	33
6/28/77 4/00/97	Germany, Netherlands, Norway, Sweden, Switzerland, United Kingdom	Implementing/ project, annex	Energy conservation in heat transfer and heat exchangers	26
10/6/77 12/31/96	Germany, Israel, Spain, Switzerland	Implementing/ project, annexes	Solar power and chemical energy systems	
10/6/77 12/31/97	Canada, Commission of the Euratom, Japan, Switzerland, Turkey	Implementing/ project, annex	Fusion energy, plasma wall interaction in Textor	110
10/6/77 Indefinite	Germany, Japan, Sweden, Switzerland, United Kingdom	Implementing/ project, annex	Man-made geothermal energy systems	
10/6/77 Indefinite	Austria, Canada, Denmark, Germany (unified), Italy, Japan, Netherlands, New Zealand, Norway, Spain, Sweden, United Kingdom	Implementing/ project, annexes	Wind turbine systems	30
10/6/77 Indefinite	Germany (unified), Japan, Switzerland	Implementing/ project, annex	Superconducting magnets for fusion power	107
10/6/77 Indefinite	Belgium, Canada, EEC, Germany, Italy, Japan, Netherlands, Sweden, Switzerland	Implementing/ project, annexes	Production of hydrogen from water	18
4/00/78 Indefinite	Belgium, Canada, Ireland, Sweden	Implementing/ project, annex	Forestry energy	
4/13/78 Indefinite	Canada, Ireland, Japan, United Kingdom	Implementing/ project, annex	Wave power R&D	
5/24/78 Indefinite	Belgium, Ireland, Sweden, United Kingdom	Implementing/ project,	Biomass conversion technical information service	58
7/27/78 Indefinite	Germany, New Zealand, Sweden, United Kingdom	Implementing/ project, annex	Energy conservation in cement manufacture	

DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT MULTI-LATERAL AGREEMENTS
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Term of Agreement	Countries	Type of Agreement	Agreement Subject Area	DOE Record #
7/27/78 Indefinite	Austria, Belgium, Canada, Denmark, Germany (unified), Italy, Japan, Netherlands, Spain, Sweden, Switzerland, United Kingdom	Implementing/ project, annex	Advanced heat pump systems	39
9/22/78 Indefinite	Belgium, EEC, Denmark, Germany, Netherlands, Sweden, Switzerland	Implementing/ project, annexes	Energy conservation through energy storage	60
1/1/79 Indefinite	Canada, Venezuela	Other	Heavy crude and tar sands	160
5/22/79 6/30/97	Germany, Japan, Sweden	Implementing/ project, annexes	High temperature materials for automotive engines	
5/22/79 Indefinite	Australia, Austria, Canada, Denmark, Egypt, France, Germany, Japan, Norway, United Kingdom	Implementing/ project, annex	Enhanced recovery of oil	159
5/22/79 Indefinite	Italy, Mexico, New Zealand	Implementing/ project, annex	Geothermal equip-ment	
10/21/80 10/21/94	Canada, EEC, Japan, Switzerland	Ongoing Agreement	Radiation Damage in Fusion Materials	115
11/13/80 Indefinite	Australia, Belgium, Denmark, EEC, Germany, Italy, Norway, Sweden, Switzerland	Implementing/ project, annexes	Energy technology systems analysis	268
2/18/81 Indefinite	Belgium, Canada, Japan, Netherlands, Norway, Spain, Sweden, United Kingdom	Implementing/ project, annexes	Energy conservation in the pulp and paper industry	53
1/1/81 1/1/2049	Canada, Japan, Netherlands, Spain, Sweden, United Kingdom	Implementing/ project, annex	Coal/oil liquid mixtures	181
12/17/82 Indefinite	Commission of the Euratom	Letters of Cooperation: Information Exchange	Renewable energy sources	277
12/31/84 Indefinite	Belgium, Canada, Finland, France, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, United Kingdom	Implementing/ project, annexes	Alternative motor fuels	55
3/27/85 Indefinite	Australia, Canada, Denmark, Finland, Germany, Italy, Netherlands, Sweden, United Kingdom		Coal Combustion Sciences	136
12/15/86 12/15/96	Commission of the Euratom		Magnetic fusion power system	103
1/26/87 Indefinite	Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom		Energy technology data exchange	3

DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT MULTI-LATERAL AGREEMENTS
All Active Agreements

Term of Agreement	Countries	Type of Agreement	Agreement Subject Area	DOE Record #
3/15/87 3/15/93	Canada, Norway, United Kingdom	Ongoing Agreement	Fossil Fuel Multiphase Flow Sciences	174
3/18/88 3/18/98	Australia, Belgium, Canada, Denmark, Finland, Italy, Japan, Korea, Netherlands, New Zealand, Norway, Sweden, Switzerland, United Kingdom	Implementing/ project, annexes	Information Center for the Analysis and Dissemination of Demonstrated Energy Technologies (CADDET)	44
1/1/89 Indefinite	Austria, Belgium, Canada, Denmark, Finland, Ireland, Italy, Japan, New Zealand, Norway, Sweden, United Kingdom	Implementing/ project, annex	Bioenergy research and development	58
4/3/90 4/2/00	Commission of the Euratom, Japan	Implementing/ project	Fusion Energy/ Reversed Field Pinches (RFP)	123
4/3/90 4/2/00	Commission of the Euratom, Japan	Annex 1	Fusion Energy/ Reversed Field Pinches (RFP)	124
4/3/90 4/2/00	Commission of the Euratom, Japan	Annex 2	Fusion Energy/ Reversed Field Pinches (RFP)	119
7/5/91 7/4/96	Russia, Former Soviet Union	MOU/MOC	Magnetic confinement fusion	91
10/1/91 10/1/96	France, Germany (unified), United Kingdom	Umbrella	Liquid metal cooled fast breeder reactors	200
10/22/91 10/22/96	Czech Republic, Slovak Republic	Science and Technology Agreement	Fusion energy	259
11/20/91 11/19/01	Canada, Denmark, Commission of the Euratom, Finland, Italy, Japan, Netherlands, Norway, Spain, Sweden, United Kingdom	Implementing/ project, annex	Greenhouse gases derived from fossil fuel use	231
7/6/92 7/6/97	Canada, Commission of the Euratom, Japan	Implementing/ project, annexes	Environmental safety and economic aspects of fusion power	232
7/6/92 7/6/97	Canada, Commission of the Euratom, Japan	Umbrella	Environmentally economic aspects of fusion power	266
7/21/92 7/20/98	EEC, Germany, Japan, the former Soviet Union		Controlled thermonuclear fusion	233

DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT MULTI-LATERAL AGREEMENTS
All Active Agreements

Term of Agreement	Countries	Type of Agreement	Agreement Subject Area	DOE Record #
11/24/92 11/11/98	Austria, Canada, Denmark, EEC, Finland, France, Germany, Israel, Italy, Japan, Korea, Netherlands, Portugal, Sweden, Switzerland, Turkey, United Kingdom	Implementing/ project, annexes	Photovoltaic power systems	
6/13/94 6/13/99	Canada, Japan	Implementing/ project, annex	Nuclear technology of fusion reactors	
7/12/94 7/12/99	Austria, Canada, France, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom	Implementing/ project, annexes	Electric vehicle (EV) technologies	

DEPARTMENT OF ENERGY RESEARCH AND DEVELOPMENT MULTI-LATERAL AGREEMENTS

All Active Agreements

Exp Date	DOE Office	Agreement #	Title
9/19/95	EM	000083	Memorandum of Cooperation in the Fields of Environmental Restoration and Waste Management between the United States of America and the Union of Soviet Socialist Republics
7/4/96	ER	000091	Memorandum of Cooperation in the Field of Magnetic Confinement Fusion Between U.S. Department of Energy and the Former Soviet Union Ministry of Atomic Power and Industry
7/4/96	ER	000126	Memorandum of Cooperation in the Field of Research on Fundamental Properties of Matter between the U.S. Department of Energy and the Ministry of Atomic Power and Industry of the Former Soviet Union
1/1/2050	FE	000160	U.S. Department of Energy, Canada and Venezuela Agreement for Unitar/UNDP Information Center for Heavy Crude and Tar Sands
10/1/96	NE	000200	U.S. Department of Energy, German Ministry of Research and Technology, Commission of Atomic Energy of France, and United Kingdom Atomic Energy Agency on Exchange of Information and Cooperation in Field of R&D of Liquid Metal Cooled Fast Breeder Reactors
	NE	000250	Proposed New Agreement - United States, Russian Federation and Ukraine Lisbon Initiative on the Review and Assessment of Russian Nuclear Reactor Design and Safety
10/22/96	PO	000259	U.S., Czech Republic and Slovak Republic Science and Technology Agreement

ATTACHMENT J.11

APPENDIX K

RESERVED

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

ATTACHMENT J.12

APPENDIX L

PERFORMANCE GUARANTEE

Applicable to the Operation of Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

PERFORMANCE GUARANTEE AGREEMENT

The University of Chicago

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract DE-AC02-07CH11359 for the management and operation of Fermi National Accelerator Laboratory (Contract dated as specified on Block 28 of SF 33), by and between the Government and Fermi Research Alliance, LLC (Contractor), the undersigned, The University of Chicago (Guarantor), a not-for-profit institution of higher learning established in the State of Illinois with its principal place of business at 5801 South Ellis Avenue, Chicago, IL 60637 hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and (c) Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against Contractor of any of the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by

Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contract or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on July 12, 2006

[SIGNATURE PAGE FOLLOWS]

The University of Chicago (Name of Guarantor)

Signature: Thomas F. Rosenbaum

Name: Thomas F. Rosenbaum

Title: Vice President for Research and for Argonne National Laboratory

EXECUTING PERFORMANCE
GUARANTEE AGREEMENT ON BEHALF OF GUARANTOR

ATTESTATION INCLUDING APPLICATION
OF SEAL BY AN OFFICIAL OF
GUARANTOR AUTHORIZED TO AFFIX
CORPORATE SEAL

Original acknowledged on July 12, 2006 by:

Russell J. Herron
Assistant Secretary of the Board of Trustees
The University of Chicago

PERFORMANCE GUARANTEE AGREEMENT

For value received, and in consideration of, and in order to induce the United States (the Government) to enter into Contract DE-AC02-07CH11359 for the management and operation of Fermi National Accelerator Laboratory (Contract dated as specified on Block 28 of SF 33), by and between the Government and Fermi Research Alliance, LLC (Contractor), the undersigned, Universities Research Association, Inc. (Guarantor), a non-profit corporation incorporated in Washington, District of Columbia, with its principal place of business at 1111 19th Street, NW, Suite 400, Washington, D.C. 20036, hereby unconditionally guarantees to the Government (a) the full and prompt payment and performance of all obligations, accrued and executory, which Contractor presently or hereafter may have to the Government under the Contract, and (b) the full and prompt payment and performance by Contractor of all other obligations and liabilities of Contractor to the Government, fixed or contingent, due or to become due, direct or indirect, now existing or hereafter and howsoever arising or incurred under the Contract, and (c) Guarantor further agrees to indemnify the Government against any losses the Government may sustain and expenses it may incur as a result of the enforcement or attempted enforcement by the Government of any of its rights and remedies under the Contract, in the event of a default by Contractor thereunder, and/or as a result of the enforcement or attempted enforcement by the Government of any of its rights against Guarantor hereunder.

Guarantor has read and consents to the signing of the Contract. Guarantor further agrees that Contractor shall have the full right, without any notice to or consent from Guarantor, to make any and all modifications or amendments to the Contract without affecting, impairing, or discharging, in whole or in part, the liability of Guarantor hereunder.

Guarantor hereby expressly waives all defenses which might constitute a legal or equitable discharge of a surety or guarantor, and agrees that this Performance Guarantee Agreement shall be valid and unconditionally binding upon Guarantor regardless of (i) the reorganization, merger, or consolidation of Contractor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Contractor, or the sale or other disposition of all or substantially all of the capital stock, business or assets of Contractor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Contractor, or adjudication of Contractor as a bankrupt, or (iii) the assertion by the Government against Contractor of any of the Government's rights and remedies provided for under the Contract, including any modifications or amendments thereto, or under any other document(s) or instrument(s) executed by Contractor, or existing in the Government's favor in law, equity, or bankruptcy.

Guarantor further agrees that its liability under this Performance Guarantee Agreement shall be continuing, absolute, primary, and direct, and that the Government shall not be required to pursue any right or remedy it may have against Contractor or other Guarantors under the Contract, or any modifications or amendments thereto, or any other document(s) or instrument(s) executed by Contractor, or otherwise. Guarantor affirms that the Government shall not be required to first commence any action or obtain any judgment against Contractor before enforcing this Performance Guarantee Agreement against Guarantor, and that Guarantor will, upon demand, pay the Government any amount, the payment of which is guaranteed hereunder and the payment of which by Contractor is in default under the Contract or under any other document(s) or instrument(s) executed by Contractor as aforesaid, and that Guarantor will, upon demand, perform all other obligations of Contractor, the performance of which by Contractor is guaranteed hereunder.

Guarantor agrees to assure that it shall cause this Performance Guarantee Agreement to be unconditionally binding upon any successor(s) to its interests regardless of (i) the reorganization, merger, or consolidation of Guarantor into or with another entity, corporate or otherwise, or the liquidation or dissolution of Guarantor, or the sale or other disposition of all or substantially all of the capital stock, business, or assets of Guarantor to any other person or party, or (ii) the institution of any bankruptcy, reorganization, insolvency, debt agreement, or receivership proceedings by or against Guarantor, or adjudication of Guarantor as a bankrupt.

Guarantor further warrants and represents to the Government that the execution and delivery of this Performance Guarantee Agreement is not in contravention of Guarantor's Articles of Organization, Charter, by-laws, and applicable law; that the execution and delivery of this Performance Guarantee Agreement, and the performance thereof, has been duly authorized by the Guarantor's Board of Directors, Trustees, or any other management board which is required to participate in such decisions; and that the execution, delivery, and performance of this Performance Guarantee Agreement will not result in a breach of, or constitute a default under, any loan agreement, indenture, or contract to which Guarantor is a party or by or under which it is bound.

No express or implied provision, warranty, representation or term of this Performance Guarantee Agreement is intended, or is to be construed, to confer upon any third person(s) any rights or remedies whatsoever, except as expressly provided in this Performance Guarantee Agreement.

In witness thereof, Guarantor has caused this Performance Guarantee Agreement to be executed by its duly authorized officer, and its corporate seal to be affixed hereto on July 12, 2006.

Universities Research Association, Inc.

x

Frederick M. Bernthal, President

Corporate Seal

ATTACHMENT J.13

APPENDIX M

CONTRACT GUIDANCE FOR PREPARATION OF DIVERSITY PLAN

Applicable to the Operation of Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

Contract Guidance for Preparation of Diversity Plan

This Guidance is to assist the Contractor in understanding the information being sought by the Department for each of the Diversity elements and where these issues may already be addressed in the contract. To the extent these issues are already addressed in the contract, the Contractor need only cross reference the location.

Contractor's Workforce

The Department's contracts contain clauses on Equal Employment Opportunity (EEO) and Affirmative Action (AA). The Plan may discuss how the contractor has or plans to establish and maintain result-oriented EEO and AA programs in accordance with the requirements of these clauses, and how the contractor's organization includes or plans to include elements/dimensions of diversity that might enhance such programs.

Community Involvement and Outreach

The Plan may discuss the Contractor's strategies to foster relationships with Minority Educational Institutions and other institutions of higher learning (e.g., Historically Black Colleges and Universities, Hispanic serving institutions, and Native American institutions) to increase their participation in federally sponsored programs through subcontracting opportunities, research and development partnerships, and mentor-protégé relationships. The contractor's Plan may also discuss cooperative programs which encourage under represented students to pursue science, engineering, and technology careers.

Educational Outreach

The Plan may discuss the Contractor's community relations activities in support of diverse elements of the local community, for example: support for science, mathematics, and engineering education; support for community service organizations; assistance to governmental and community service organizations and for equal opportunity activities; and community assistance in connection with work force reduction plans; strategic partnerships with professional and scientific organizations to enhance recruitment into all levels of the organization; and use of direct sponsorship or making individual employees available to work with a specific community activity.

Subcontracting

The contract contains FAR clause 52.219-9, entitled, "Small Business Subcontracting Plan," and other small business related clauses.

The Plan may discuss outreach activities and achievements for enhancing subcontracting opportunities for small businesses, small disadvantaged businesses (e.g., small businesses owned and controlled by socially and economically disadvantaged individuals, tribes, Alaska Native Corporations, Native Hawaiian Organizations, or Community Development Corporations), small business firms located in historically underutilized business zones, woman-owned small businesses, and veteran-owned (including service-disabled veteran-owned) small businesses.

The Plan may also discuss actual or planned participation in the Department's Mentor-Protégé Program.

Economic Development (including technology transfer)

This contract includes terms and conditions dealing with technology transfer. Planning or activities developed under such clauses may apply to this element of the Diversity Plan. Additionally, subcontracting policies and activities undertaken or planned by the contractor with small, small disadvantaged, woman-owned, and service-disabled veteran small business concerns for the purpose of assisting the economic development of, or transferring technology to, such business concerns may be discussed.

Prevention of Profiling Based on Race or National Origin

Profiling pertains to those practices that scrutinize, target or treat employees or applicants for employment differently or single them out or select them for unjustified additional scrutiny, based on race or national origin. The Plan may discuss the contractor’s approach to preventing prohibited profiling practices, including strategies for early detection of potential profiling in the contractor’s business activities (e.g., personnel actions, security clearances).

The Plan may also discuss procedures intended to expedite timely resolution of adverse actions and methodologies for benchmarking, sharing best practices, or lessons learned in the prevention of prohibited profiling. Forums available to employees for expressing concerns or issues about prohibited profiling practices in the workplace.

ATTACHMENT J.14

APPENDIX N

SENSITITVE FOREIGN NATIONS

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

LIST OF SENSITIVE COUNTRIES

Countries appear on this list for reasons of national security, terrorism or nuclear nonproliferation support.

Algeria
Armenia
Azerbaijan
Belarus
China, People's Republic of
Cuba
Georgia
India
Iran
Iraq
Israel
Kazakhstan
Kyrgyzstan
Libya
Moldova
North Korea, Democratic People's Republic of
Pakistan
Russia
Sudan
Syria
Taiwan
Tajikistan
Turkmenistan
Ukraine
Uzbekistan

NOTE: Due to the dynamic nature of world events, other countries may, at any time, become sensitive. Therefore, caution should be exercised in dealing with citizens of countries not listed to assure that sensitive information, although unclassified in nature, is not inadvertently disclosed. This would include nuclear and other U.S. technology and economic information.

U.S. DEPARTMENT OF ENERGY | Office of Science

Contractor Performance Evaluation and Measurement Plan of

Fermi Research Alliance, LLC.

for the

Management and Operation of the Fermi National Accelerator Laboratory

FY 2015

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INTRODUCTION

This document, the Performance Evaluation and Measurement Plan (PEMP), primarily serves as DOE's Quality Assurance/Surveillance Plan (QASP) for the evaluation of Fermi Research Alliance, LLC. (hereafter referred to as "the Contractor") performance regarding the management and operations of the Fermi National Accelerator Laboratory (hereafter referred to as "the Laboratory") for the evaluation period from October 1, 2014, through September 30, 2015. The performance evaluation provides a standard by which to determine whether the Contractor is managerially and operationally in control of the Laboratory and is meeting the mission requirement and performance expectations/objectives of the Department as stipulated within this contract.

This document also describes the distribution of the total available performance-based fee and the methodology for determining the amount of fee earned by the Contractor as stipulated within the clauses entitled, "Determining Total Available Performance Fee and Fee Earned," "Conditional Payment of Fee, Profit, or Incentives," and "Total Available Fee: Base Fee Amount and Performance Fee Amount." In partnership with the Contractor and other key customers, the Department of Energy (DOE) Headquarters (HQ) and the Site Office have defined the measurement basis that serves as the Contractor's performance-based evaluation and fee determination.

The Performance Goals (hereafter referred to as Goals), Performance Objectives (hereafter referred to as Objectives) and set of notable outcomes discussed herein were developed in accordance with contract expectations set forth within the contract. The notable outcomes for meeting the Objectives set forth within this plan have been developed in coordination with HQ program offices as appropriate. Except as otherwise provided for within the contract, the evaluation and fee determination will rest solely on the Contractor's performance within the Performance Goals and Objectives set forth within this plan.

The overall performance against each Objective of this performance plan, to include the evaluation of notable outcomes, shall be evaluated jointly by the appropriate HQ office, major customer and/or the Site Office as appropriate. This cooperative review methodology will ensure that the overall evaluation of the Contractor results in a consolidated DOE position taking into account specific notable outcomes as well as all additional information available to the evaluating office. The Site Office shall work closely with each HQ program office or major customer throughout the year in evaluating the Contractor's performance and will provide observations regarding programs and projects as well as other management and operation activities conducted by the Contractor throughout the year.

Section I provides information on how the performance rating (grade) for the Contractor, as well as how the performance-based incentives fee earned (if any) will be determined. As applicable, also provides information on the award term eligibility requirements.

Section II provides the detailed information concerning each Goal, their corresponding Objectives, and notable outcomes identified, along with the weightings assigned to each Goal and Objective and a table for calculating the final grade for each Goal.

I. DETERMINING THE CONTRACTOR'S PERFORMANCE RATING, PERFORMANCE-BASED FEE AND AWARD TERM ELIGIBILITY

The FY 2015 Contractor performance grades for each Goal will be determined based on the weighted sum of the individual scores earned for each of the Objectives described within this document for Science and Technology (S&T) and for Management and Operations (M&O). Each Goal is composed of two or more weighted Objectives. Additionally, a set of notable outcomes has been identified to highlight key aspects/areas of performance deserving special attention by the Contractor for the upcoming fiscal year.

Each notable outcome is linked to one or more Objectives, and failure to meet expectations against any notable outcome will result in a grade less than B+ for that Objective(s) (i.e., if the contractor fails to meet expectations against a notable outcome tied to an Objective under Goal 1.0, 2.0, or 3.0, the SC program office that assigned the notable outcome shall award a grade less than "B+" for the Objective(s) to which the notable outcome is linked; and if the contractor fails to meet expectations against a notable outcome tied to an Objective under Goal 4.0, 5.0, 6.0, 7.0 or 8.0, SC shall award a grade less than "B+" for the Objective(s) to which the notable outcome is linked). Performance above expectations against a notable outcome will be considered in the context of the Contractor's entire performance with respect to the relevant Objective. The following section describes SC's methodology for determining the Contractor's grades at the Objective level.

Performance Evaluation Methodology:
The purpose of this section is to establish a methodology to develop grades at the Objective level. Each evaluating office shall provide a proposed grade and corresponding numerical score for each Objective (see Figure 1 for SC's scale). Each evaluation will measure the degree of effectiveness and performance of the Contractor in meeting the corresponding Objectives.

Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Total Score	**4.3-4.1**	**4.0-3.8**	**3.7-3.5**	**3.4-3.1**	**3.0-2.8**	**2.7-2.5**	**2.4-2.1**	**2.0-1.8**	**1.7-1.1**	**1.0-0.8**	**0.7-0**

Figure 1. FY 2015 Contractor Letter Grade Scale

For the three S&T Goals (1.0 – 3.0) the Contractor shall be evaluated against the defined levels of performance provided for each Objective under the S&T Goals. The Contractor performance under Goal 4.0 will also be evaluated using the defined levels of performance described for the three Objectives under Goal 4.0. The descriptions for these defined levels of performance are included in Section II.

It is the DOE's expectation that the Contractor provides for and maintains management and operational (M&O) systems that efficiently and effectively support the current mission(s) of the Laboratory and assure the Laboratory's ability to deliver against DOE's future needs. In evaluating the Contractor's performance DOE shall assess the degree of effectiveness and performance in meeting each of the Objectives provided under each of the Goals. For the four M&O Goals (5.0 – 8.0) DOE will rely on a combination of the information through the Contractor's own assurance systems, the ability of the Contractor to demonstrate the validity of this information, and DOE's own independent assessment of the Contractor's performance across the spectrum of its responsibilities. The latter might include, but is not limited to operational awareness (daily oversight) activities; formal assessments conducted; "For Cause" reviews (if any); and other outside agency reviews (OIG, GAO, DCAA, etc.).

The mission of the Laboratory is to deliver the science and technology needed to support Departmental missions and other sponsor's needs. Operational performance at the Laboratory meets DOE's expectations (defined as the grade of B+) for each Objective if the Contractor is performing at a level that fully supports the Laboratory's current and future science and technology mission(s). Performance that has, or has the potential to, 1) adversely impact the delivery of the current and/or future DOE/Laboratory mission(s), 2) adversely impact the DOE and or the Laboratory's reputation, or 3) does not provide the competent people, necessary facilities and robust systems necessary to ensure sustainable performance, shall be graded below expectations as defined in Figure I-1, below.

The Department sets our expectations high, and expects performance at that level to optimize the efficient and effective operation of the Laboratory. Thus, the Department does not expect routine Contractor performance above expectations against the M&O Goals (5.0 – 8.0). Performance that might merit grades

above B+ would need to reflect a Contractor's significant contributions to the management and operations at the system of Laboratories, or recognition by external, independent entities as exemplary performance.

Definitions for the grading scale for the Goal 5.0 – 8.0 Objectives are provided in Figure I-1, below:

Letter Grade	Numerical Grade	Definition
A+	4.3-4.1	Significantly exceeds expectations of performance against all aspects of the Objective in question. The Contractor's systems function at a level that fully supports the Laboratory's current and future science and technology mission(s). Performance is notable for its significant contributions to the management and operations across the SC system of laboratories, and/or has been recognized by external, independent entities as exemplary.
A	4.0-3.8	Notably exceeds expectations of performance against all aspects of the Objective in question. The Contractor's systems function at a level that fully supports the Laboratory's current and future science and technology mission(s). Performance is notable for its contributions to the management and operations across the SC system of laboratories, and/or as been recognized by external, independent entities as exemplary.
A-	3.7-3.5	Exceeds expectations of performance against all aspects of the Objective in question. The Contractor's systems function at a level that fully supports the Laboratory's current and future science and technology mission(s).
B+	3.4-3.1	Meets expectations of performance against all aspects of the Objective in question. The Contractor's systems function at a level that fully supports the Laboratory's current and future science and technology mission(s). No performance has, or has the potential to, adversely impact 1) the delivery of the current and/or future DOE/Laboratory mission(s), 2) the DOE and/or the Laboratory's reputation, or does not 3) provide a sustainable performance platform.
B	3.0 -2.8	Just misses meeting expectations of performance against a few aspects of the Objective in question. In a few minor instances, the Contractor's systems function at a level that does not fully support the Laboratory's current and future science and technology mission, or provide a sustainable performance platform.
B-	2.7-2.5	Misses meeting expectations of performance against several aspects of the Objective in question. In several areas, the Contractor's systems function at a level that does not fully support the Laboratory's current and future science and technology mission, or provide a sustainable performance platform.
C+	2.4-2.1	Misses meeting expectations of performance against many aspects of the Objective in question. In several notable areas, the Contractor's systems function at a level that does not fully support the Laboratory's current and future science and technology mission or provide a sustainable performance platform, and/or have affected the reputation of the Laboratory or DOE.
C	2.0-1.8	Significantly misses meeting expectations of performance against many aspects of the Objective in question. In many notable areas, the Contractor's systems do not support the Laboratory's current and future science and technology mission, nor provide a sustainable performance platform and may affect the reputation of the Laboratory or DOE.
C-	1.7- 1.1	Significantly misses meeting expectations of performance against most aspects of the Objective in question. In many notable areas, the Contractor's systems demonstrably hinder the Laboratory's ability to deliver on current and future science and technology mission, and have harmed the reputation of the Laboratory or DOE.
D	1.0-0.8	Most or all expectations of performance against the Objective in question are missed. Performance failures in this area have affected all parts of the Laboratory; DOE leadership engagement is required to deal with the situation and help the Contractor.
F	0.7-0	All expectations of performance against the Objective in question are missed. Performance failures in this area are not recoverable by the Contractor or DOE.

Figure I-1. Letter Grade and Numerical Grade Definitions

Calculating Individual Goal Scores and Letter Grades:
Each Objective is assigned the earned numerical score by the evaluating office as stated above. The Goal rating is then computed by multiplying the numerical score by the weight of each Objective within a Goal. These values are then added together to develop an overall numerical score for each Goal. For the purpose of determining the final Goal grade, the raw numerical score for each Goal will be rounded to the nearest tenth of a point using the standard rounding convention discussed below and then compared to Figure I-1. A set of tables is provided at the end of each Performance Goal section of this document to assist in the calculation of Objective numerical scores to the Goal grade. No overall rollup grade shall be provided.

As stated above the raw numerical score from each calculation shall be carried through to the next stage of the calculation process. The raw numerical score for S&T and M&O will be rounded to the nearest tenth of a point for purposes of determining fee. A standard rounding convention of x.44 and less rounds down to the nearest tenth (here, x.4), while x.45 and greater rounds up to the nearest tenth (here, x.5).

The eight Performance Goal grades shall be used to create a report card for the laboratory (see Figure 2, below).

Performance Goal	**Grade**
1.0 Mission Accomplishment	
2.0 Design, Fabrication, Construction and Operations of Research Facilities	
3.0 Science and Technology Program Management	
4.0 Sound and Competent Leadership and Stewardship of the Laboratory	
5.0 Integrated Safety, Health, and Environmental Protection	
6.0 Business Systems	
7.0 Acquiring, Constructing, Operating, Maintaining, and Renewing Facility and Infrastructure Portfolio	
8.0 Integrated Safeguards and Security Management and Emergency Management Systems	

Figure 2. Laboratory Report Card

Determining the Amount of Performance-Based Fee Earned:
SC uses the following process to determine the amount of performance-based fee earned by the contractor. The rollup of the scores for each S&T Performance Goal shall be used to determine an initial numerical score for S&T (see Table A, below), and the rollup of the scores for each M&O Performance Goal shall be used to determine an initial numerical M&O score (see Table B, below).

S&T Performance Goal	**Numerical Score**	**Weight[1]**		
1.0 Mission Accomplishment		TBD		
2.0 Design, Fabrication, Construction and Operation of Research Facilities		TBD		
3.0 Science and Technology Program Management		25%		
			Initial S&T Score	

Table A: Fiscal Year 2015 Contractor Evaluation Initial S&T Score Calculation

[1] For Goal 3.0, the weight is 25%. For Goals 1.0 and 2.0, the weights are based on final fiscal year costs for each program distributed between these two Goals. The sum of Goal 1.0 and 2.0 equates to a total of 75%.

- Goal 1 weight – SC other mission dollars + non-SC dollars/total dollars
- Goal 2 weight – SC research facility dollars/total dollars
- Goal 3 weight – Fixed percentage for all Laboratories.

M&O Performance Goal	Numerical Score	Weight		
5.0 Integrated Safety, Health, and Environmental Protection		30%		
6.0 Business Systems		30%		
7.0 Acquiring, Constructing, Operating, Maintaining, and Renewing Facility and Infrastructure Portfolio		25%		
8.0 Integrated Safeguards and Security Management and Emergency Management Systems		15%		
			Initial M&O Score	

Table B. Fiscal Year 2015 Contractor Evaluation Initial M&O Score Calculation

These initial scores will then be adjusted based on the numerical score for Goal 4.0 (see Table C, below).

	Numerical Score	Weight		
Initial S&T Score		0.75		
Goal 4.0		0.25		
			Final S&T Score	
Initial M&O Score		0.75		
Goal 4.0		0.25		
			Final M&O Score	

Table C. FY Fiscal Year 2015 Final S&T and M&O Score Calculation

The percentage of the available performance-based fee that may be earned by the Contractor shall be determined based on the final score for S&T (see Table C) and then compared to Figure 3, below. The final score for M&O from Table C shall then be utilized to determine the final fee multiplier (see Figure 3), which shall be utilized to determine the overall amount of performance-based fee earned for FY 2015 as calculated within Table D.

Overall Final Score for either S&T or M&O from Table C.	Percent S&T Fee Earned	M&O Fee Multiplier
4.3	**100%**	**100%**
4.2		
4.1		
4.0	**97%**	**100%**
3.9		
3.8		
3.7	**94%**	**100%**
3.6		
3.5		
3.4	**91%**	**100%**
3.3		
3.2		
3.1		
3.0	**88%**	**95%**
2.9		

Overall Final Score for either S&T or M&O from Table C.	Percent S&T Fee Earned	M&O Fee Multiplier
2.8		
2.7	85%	90%
2.6		
2.5		
2.4	75%	85%
2.3		
2.2		
2.1		
2.0	50%	75%
1.9		
1.8		
1.7	0%	60%
1.6		
1.5		
1.4		
1.3		
1.2		
1.1		
1.0 to 0.8	0%	0%
0.7 to 0.0	0%	0%

Figure 3. Performance-Based Fee Earned Scale

Overall Fee Determination	
Percent S&T Fee Earned	
M&O Fee Multiplier	x
Overall Earned Performance-Based Fee	

Table D. Final Percentage of Performance-Based Fee Earned Determination

The Federal Acquisition Regulations (FAR) requirements for using and administering cost-plus-award-fee contracts provide for a five-level adjectival grading system with associated levels of available fee.[1] SC has addressed the FAR 16 language by mapping its standard numerical scores and associated fee determinations to the FAR Adjectival Rating System, as noted in Figure 4 on the next page.

[1] See Policy Flash 2010-05, *Federal Acquisition Circular 2005-37*.

Range of Overall Final Score for S&T from Table B.	FAR Adjectival Rating	Maximum Performance-Fee Pool Available to be Earned
3.1 to 4.3	**Excellent**	**100%**
2.5 to 3.0	**Very Good**	**88%**
2.1 to 2.4	**Good**	**75%**
1.8 to 2.0	**Satisfactory**	**50%**
0.0 to 1.7	**Unsatisfactory**	**0%**

Figure 4. Crosswalk of SC Numerical Scores and the FAR 16 Adjectival Rating System

Adjustment to the Letter Grade and/or Performance-Based Fee Determination:
The lack of performance objectives and notable outcomes in this plan do not diminish the need to comply with minimum contractual requirements. Although the performance-based Goals and their corresponding Objectives shall be the primary means utilized in determining the Contractor's performance grade and/or amount of performance-based fee earned, the Contracting Officer may unilaterally adjust the rating and/or reduce the otherwise earned fee based on the Contractor's performance against all contract requirements as set forth in the Prime Contract. While reductions may be based on performance against any contract requirement, specific note should be made to contract clauses which address reduction of fee including, Standards of Contractor Performance Evaluation, DEAR 970.5215-1 – Total Available Fee: Base Fee Amount and Performance Fee Amount, and Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts. Data to support rating and/or fee adjustments may be derived from other sources to include, but not limited to, operational awareness (daily oversight) activities; "For Cause" reviews (if any); and other outside agency reviews (OIG, GAO, DCAA, etc.), as needed.

The adjustment of a grade and/or reduction of otherwise earned fee will be determined by the severity of the performance failure and consideration of mitigating factors. DEAR 970.5215-3 Conditional Payment of Fee, Profit, and Other Incentives – Facility Management Contracts is the mechanism used for reduction of fee as it relates to performance failures related to safeguarding of classified information and to adequate protection of environment, health and safety. Its guidance can also serve as an example for reduction of fee in other areas.

The final Contractor performance-based grades for each Goal and fee earned determination will be contained within a year-end report, documenting the results from the DOE review. The report will identify areas where performance improvement is necessary and, if required, provide the basis for any

performance-based rating and/or fee adjustments made from the otherwise earned rating/fee based on Performance Goal achievements.

Determining Award Term Eligibility: The prime contract contains a non-monetary performance incentive, in Section F "Deliveries or Performance" at Clause F.2. The base term of the prime contract was five years, expiring December 31, 2011. The contract has been extended up to and including December 31, 2016 and is eligible to be extended through December 31, 2017. Contingent upon approval of contract extension, the prime contract may be extended utilizing the "Award Term Incentive (Special)" Clause.

II. PERFORMANCE GOALS, OBJECTIVES & NOTABLE OUTCOMES

Background

The current performance-based management approach to oversight within DOE has established a new culture within the Department with emphasis on the customer-supplier partnership between DOE and the laboratory contractors. It has also placed a greater focus on mission performance, best business practices, cost management, and improved contractor accountability. Under the performance-based management system the DOE provides clear direction to the laboratories and develops annual performance plans (such as this one) to assess the contractors performance in meeting that direction in accordance with contract requirements. The DOE policy for implementing performance-based management includes the following guiding principles:

- Performance objectives are established in partnership with affected organizations and are directly aligned to the DOE strategic goals;
- Resource decisions and budget requests are tied to results; and
- Results are used for management information, establishing accountability, and driving long-term improvements.

The performance-based approach focuses the evaluation of the Contractor's performance against these Performance Goals. Progress against these Goals is measured through the use of a set of Objectives. The success of each Objective will be measured based on demonstrated performance by the laboratory, and on a set of notable outcomes that focus laboratory leadership on the specific items that are the most important initiatives and highest risk issues the laboratory must address during the year. These notable outcomes should be objective, measurable, and results-oriented to allow for a definitive determination of whether or not the specific outcome was achieved at the end of the year.

Performance Goals, Objectives, and Notable Outcomes

The following sections describe the Performance Goals, their supporting Objectives, and associated notable outcomes for FY 2015.

GOAL 1.0 Provide for Efficient and Effective Mission Accomplishment

The science and technology programs at the Laboratory produce high-quality, original, and creative results that advance science and technology; demonstrate sustained scientific progress and impact; receive appropriate external recognition of accomplishments; and contribute to overall research and development goals of the Department and its customers.

The weight of this Goal is TBD

The final weights to be utilized for determining weighted scores will be determined following the end of the performance period and will be based on actual cost for FY 2015.

The Provide for Efficient and Effective Mission Accomplishment Goal measures the overall effectiveness and performance of the Contractor in delivering science and technology results which contribute to and enhance the DOE's mission of protecting our national and economic security by providing world-class scientific research capacity and advancing scientific knowledge by supporting world-class, peer-reviewed scientific results, which are recognized by others.

Each Objective within this Goal is to be assigned the appropriate numerical score by the Office of Science Program Office as identified below. The overall Goal score from each Program Office is computed by multiplying numerical scores earned by the weight of each Objective, and summing them (see Table 1.1).

- Office of High Energy Physics (HEP)

The overall performance score and grade for this Goal will be determined by multiplying the overall score assigned by each of the offices identified above by the weightings identified for each and then summing them (see Table 1.2 below). The overall score earned is then compared to Table 1.3 to determine the overall letter grade for this Goal. Individual Program Office weightings for each of the Objectives identified below are provided within Table 1.1. The Contractor's success in meeting each Objective shall be determined based on the Contractor's performance as viewed by the Office of Science Program, with input provided by each of the Program Offices. Should one or more of the HQ Program Offices choose not to provide an evaluation for this Goal and its corresponding Objectives the weighting for the remaining HQ Program Offices shall be recalculated based on their percentage of cost for FY 2015 as compared to the total cost for those remaining HQ Program Offices.

Objectives

1.1 Provide Science and Technology Results with Meaningful Impact on the Field

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- Performance of the Laboratory with respect to proposed research plans;
- Performance of the Laboratory with respect to community impact and peer review; and
- Performance of the Laboratory with respect to impact to DOE mission needs.

The following is a sampling of factors to be considered in determining the level of performance for the Laboratory against this Objective. The evaluator(s) may consider the following as measured through progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.

- Impact of publications on the field, as measured primarily by peer review;

- Impact of S&T results on the field, as measured primarily by peer review;
- Impact of S&T results outside the field indicating broader interest;
- Impact of S&T results on DOE or other customer mission(s);
- Successful stewardship of mission-relevant research areas;
- Delivery on proposed S&T plans;
- Significant awards (Nobel Prizes, R&D 100, FLC, etc.);
- Invited talks, citations, making high-quality data available to the scientific community; and
- Development of tools and techniques that become standards or widely-used in the scientific community.

Letter Grade	**Definition**
A+	In addition to satisfying the conditions for B+ • There are *significant research areas for which* the Laboratory *has exceeded the expectations* of the proposed research plans *in significant ways through creative, new, or unconventional methods that allow greater scientific reach than expected*. • S&T conducted at the Laboratory *has resolved one of the most critical questions in the field, or has changed the way the research community thinks about a particular field through paradigm shifting discoveries that would be considered the most influential discovery of the decade for that field*. • S&T conducted at the Laboratory *provided major advances that significantly accelerate* DOE or other customer mission(s).
A	In addition to satisfying the conditions for B+ • There are *important examples* where the Laboratory *exceeded the expectations* of the proposed research plans *in significant ways through creative, new, or unconventional methods that allow greater scientific reach than expected*. • *All area*s of S&T conducted at the Laboratory are of *exceptional or outstanding* merit and quality. • S&T conducted at the Laboratory has *significant positive impact* to DOE or other customer missions.
A-	In addition to satisfying the conditions for B+ • There are *important examples* where the Laboratory *exceeded the expectations* of the proposed research plans. • *Significant areas* of S&T conducted at the Laboratory are of *exceptional or outstanding* merit and quality. • S&T conducted at the Laboratory *significantly impact* DOE or other customer missions.
B+	The Laboratory has achieved each of the following objectives: • The Laboratory has successfully executed proposed research plans. • S&T conducted at the Laboratory are of *high* scientific merit and quality • S&T conducted at the Laboratory *advance* DOE or other customer missions.
B	• The Laboratory has successfully executed proposed research plans. • S&T conducted at the Laboratory *advance* DOE or other customer missions. BUT the Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • S&T conducted at the Laboratory are *not uniformly of high* merit and quality OR *some areas of research, previously supported, have become uncompetitive* OR *the Laboratory does not produce sufficiently competitive proposals to receive program support at a level commensurate with its unique capabilities*.
B-	The Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • The Laboratory has *failed to successfully execute* proposed research plans *but contingencies were in place such that no funding was or will be terminated*. OR S&T conducted at the Laboratory *does little to advance* DOE or other customer missions. • *Significant areas of* S&T conducted at the Laboratory are *not of high* merit and quality OR *some areas of research, previously supported, have become uncompetitive* OR *the Laboratory do not produce sufficiently competitive proposals to receive program support at a level commensurate with its unique capabilities.*

Letter Grade	Definition
C	The Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • *In several significant aspects*, the Laboratory *failed to deliver* on proposed research plans *using available resources such that some funding was or will be terminated* OR S&T conducted at the Laboratory *failed to contribute to* DOE or other customer missions • *Significant areas of* S&T conducted at the Laboratory are *of poor* merit and quality OR *some areas of research, previously supported, have become uncompetitive* AND *the Laboratory does not produce sufficiently competitive proposals to receive program support at a level commensurate with its unique capabilities*.
D	The Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • *Multiple program elements at* the Laboratory *failed to deliver* on proposed research plans *using available resources such that significant funding was or will be terminated*. • *Multiple significant areas of* S&T conducted at the Laboratory are *of poor* merit and quality OR *some areas of research, previously supported, have become uncompetitive* AND *the Laboratory does not produce sufficiently competitive proposals to receive program support at a level commensurate with its unique capabilities*. • S&T conducted at the Laboratory *failed to contribute to* DOE or other customer missions.
F	The Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • *Multiple program elements at* the Laboratory *failed to deliver* on proposed research plans *using available resources resulting in total termination of funding*. • *Multiple significant areas of* S&T conducted at the Laboratory are *of poor* merit and quality OR *some areas of research, previously supported, have become uncompetitive* AND *the Laboratory does not produce sufficiently competitive proposals to receive program support at a level commensurate with its unique capabilities OR the Laboratory has been found to have engaged in gross scientific incompetence and/or scientific fraud*. • S&T conducted at the Laboratory *failed to contribute to* DOE or other customer missions.

1.2 Provide Quality Leadership in Science and Technology that Advances Community Goals and DOE Mission Goals.

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- Innovativeness / Novelty of research ideas put forward by the Laboratory;
- Extent to which Laboratory staff members take on substantive or formal leadership roles in their community;
- Extent to which Laboratory staff members take on formal leadership roles in DOE and SC activities; and
- Extent to which Laboratory staff members contribute thoughtful and thorough peer reviews and other research assessments as requested by DOE and SC.

The following is a sampling of factors to be considered in determining the level of performance for the Laboratory against this Objective. The evaluator(s) may consider the following as measured through progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.:

- Willingness to pursue novel approaches and/or demonstration of innovative solutions to problems;
- Willingness to take on high-risk/high payoff/long-term research problems, evidence that previous risky decisions by the PI/research staff have proved to be correct and are paying off;
- The uniqueness and challenge of science pursued, recognition for doing the best work in the field;
- Extent and quality of collaborative efforts;

- Staff members visible in leadership positions in the scientific community;
- Involvement in professional organizations, National Academies panels and workshops,
- Effectiveness in driving the direction and setting the priorities of the community in a research field; and
- Success in competition for resources.

Letter Grade	Definition
A+	In addition to satisfying the conditions for B+, the following conditions hold for ALL Laboratory staff: • Laboratory staff members have *leadership positions* in professional organizations AND *in National Academy or equivalent panels to discuss and determine further research directions*; • Laboratory staff members have *leadership positions* in DOE sponsored workshops and strategic planning activities, for example, Laboratory staff members chair or co-chair DOE-sponsored workshops and strategic planning activities. • The Laboratory program consistently produces and submits competitive proposals that challenge convention and open *significant new fields* for research that are well aligned with DOE mission needs and *the Laboratory has a strong recognized role in setting priorities and driving the direction in key research areas and are internationally recognized leaders in the field*. • Laboratory staff hold *leadership positions* in multi-institutional research collaborations.
A	In addition to satisfying the conditions for B+ • Laboratory staff members have *leadership positions* in professional organizations AND *staff has contributing role in National Academy or equivalent panels to discuss further research directions*; • Laboratory staff members have *leadership positions* in DOE sponsored workshops and strategic planning activities. • The Laboratory program consistently produces and submits competitive proposals that challenge convention and open *significant new fields* for research that are well aligned with DOE mission needs and *the Laboratory has a strong recognized role in setting priorities and driving the direction in key research areas*. • Laboratory staff hold *leadership positions* in multi-institutional research collaborations.
A-	In addition to satisfying the conditions for B+ • Laboratory staff members have *leadership positions* in professional organizations OR *staff has contributing role in National Academy or equivalent panels to discuss further research directions*; • Laboratory staff members have *leadership positions* in DOE sponsored workshops and strategic planning activities. • The Laboratory program consistently submits competitive proposals that challenge convention and open *significant* new avenues for research that are well aligned with DOE mission needs. • Laboratory staffs hold *leadership positions* in multi-institutional research collaborations.
B^+	The Laboratory has achieved each of the following objectives: • Laboratory staff members are *active participants* in professional organizations, committees, and activities, and take on leadership responsibilities commensurate with experience and expertise. • Laboratory staff members are *active participants* in DOE sponsored workshops and strategic planning activities. • Laboratory staff members contribute thoughtful and thorough peer review in a timely manner, when requested by DOE. • The Laboratory program consistently provides competitive proposals that challenge convention and open new avenues for research that are well aligned with DOE mission needs. • Laboratory staff are *active participants* in multi-institutional research collaborations

Letter Grade	Definition
B	• Laboratory staff members contribute thoughtful and thorough peer review in a timely manner, when requested by DOE. • The Laboratory program consistently provides competitive proposals that challenge convention and open new avenues for research that are well aligned with DOE mission needs. BUT the Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • Although *regular participants* in professional organizations, committees, and activities, *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.* • Although *regular participants* in DOE sponsored workshops and strategic planning activities, *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.* • Although *active members of* multi-institutional research collaborations, *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.*
B-	• Laboratory staff members contribute thoughtful and thorough peer review in a timely manner, when requested by DOE. BUT the Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • The Laboratory program submits competitive proposals *but these either lack innovation or are not well aligned with DOE mission needs*. • Laboratory staff are *infrequent participants* in professional organizations, committees, and activities, and *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.* • Laboratory staff are *infrequent participants* in DOE sponsored workshops and strategic planning activities, and *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.* • Although *active members of* multi-institutional research collaborations, *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.*
C	The Laboratory fails to meet the conditions for B+ for *at least one* of the following reasons: • Laboratory staff members *do not reliably* contribute thoughtful and thorough peer review in a timely manner, when requested by DOE. • *Some areas of research, previously supported, are no longer competitive*. • Laboratory staff members are *infrequent participants* in professional organizations, committees, and activities, AND *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.* • Laboratory staff members are *infrequent participants* in DOE sponsored workshops and strategic planning activities, and *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.* • Although Laboratory staff members are *active members of* multi-institutional research collaborations, *the extent to which staff take on leadership roles falls short of what would be expected, given the level of experience and expertise of the staff.*
D	The Laboratory fails to meet the conditions for B+ because *the Laboratory staff are working on problems that are no longer at the forefront of science and are considered mundane*.
F	Review has found the Laboratory staff to be *guilty of gross scientific incompetence and/or scientific fraud*.

Notable Outcomes

- None

Science Program Office[2]	Letter Grade	Numerical Score	Weight	Overall Score
Office of High Energy Physics				
1.1 Impact			50%	
1.2 Leadership			50%	
			Overall HEP Total	

Table 1.1 – SC Program Office Performance Goal 1.0 Score Development

Science Program Office	Letter Grade	Numerical Score	Funding Weight (cost)	Overall Weighted Score
Office of High Energy Physics				
			Performance Goal 1.0 Total	

Table 1.2 – Overall Performance Goal 1.0 Score Development[3]

Total Score	4.3-4.1	4.0-3.8	3.7-3.5	3.4-3.1	3.0-2.8	2.7-2.5	2.4-2.1	2.0-1.8	1.7-1.1	1.0-0.8	0.7-0
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 1.3 –Goal 1.0 Final Letter Grade

[2] A complete listing of the Objectives weightings under the S&T Goals for the SC Programs is provided within Attachment I to this plan.
[3] The final weights to be utilized for determining weighted scores will be determined following the end of the performance period and will be based on actual cost for FY 2015.

GOAL 2.0 Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities

The Laboratory provides effective and efficient strategic planning; fabrication, construction and/or operations of Laboratory research facilities; and are responsive to the user community.

The weight of this Goal is TBD

The final weights to be utilized for determining weighted scores will be determined following the end of the performance period and will be based on actual cost for FY 2015.

The Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities Goal shall measure the overall effectiveness and performance of the Contractor in planning for and delivering leading-edge specialty research and/or user facilities to ensure the required capabilities are present to meet today's and tomorrow's complex challenges. It also measures the Contractor's innovative operational and programmatic means for implementation of systems that ensures the availability, reliability, and efficiency of these facilities; and the appropriate balance between R&D and user support.

Each Objective within this Goal is to be assigned the appropriate numerical score by the Office of Science Program Office as identified below. The overall Goal score from each Program Office is computed by multiplying numerical scores earned by the weight of each Objective, and summing them (see Table 2.1).

- Office of High Energy Physics (HEP)
- Office of Basic Energy Sciences (BES)

The overall performance score and grade for this Goal will be determined by multiplying the overall score assigned by each of the offices identified above by the weightings identified for each and then summing them (see Table 2.2 below). The overall score earned is then compared to Table 2.3 to determine the overall letter grade for this Goal. Individual Program Office weightings for each of the Objectives identified below are provided within Table 2.1. The Contractor's success in meeting each Objective shall be determined based on the Contractor's performance as viewed by DOE HQ Office of Science's (SC) Program Offices for which the Laboratory conducts work. Should one or more of the HQ Program Offices choose not to provide an evaluation for this Goal and its corresponding Objectives the weighting for the remaining HQ Program Offices shall be recalculated based on their percentage of cost for FY 2015 as compared to the total cost for those remaining HQ Program Offices.

Objectives

2.1 Provide Effective Facility Design(s) as Required to Support Laboratory Programs (i.e., activities leading up to CD-2)

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The Laboratory's delivery of accurate and timely information required to carry out the critical decision and budget formulation process;
- The Laboratory's ability to meet the intent of DOE Order 413.3, Program and Project Management for the Acquisition of Capital Assets;
- The extent to which the Laboratory appropriately assesses risks and contingency needs; and

- The extent to which the Laboratory is effective in its unique management role and partnership with HQ.

The following is a sampling of factors to be considered in determining the level of performance for the Laboratory against this Objective. The evaluator(s) may consider the following as measured through progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.

- The quality of the scientific justification for proposed facilities resulting from preconceptual R&D;
- The technical quality of conceptual and preliminary designs and the credibility of the associated cost estimates
- The credibility of plans for the full life cycle of proposed facilities including financing options;
- The leveraging of existing facilities and capabilities of the DOE Laboratory complex in plans for proposed facilities; and
- The novelty and potential impact of new technologies embodied in proposed facilities.

Letter Grade	**Definition**
A+	In addition to satisfying all conditions for B+; the Laboratory *exceeds expectations* in *all* of these categories: • The Laboratory is recognized by the research community as the leader for making the science case for the acquisition; • The Laboratory takes the initiative to demonstrate and thoroughly document the potential for transformational scientific advancement. • Approaches proposed by the Laboratory are widely regarded as innovative, novel, comprehensive, and potentially cost-effective. • Reviews repeatedly confirm strong potential for scientific discovery in areas that support the Department's mission, and potential to change a discipline or research area's direction. • The Laboratory identifies, analyzes and champions novel approaches for acquiring the new capability, including leveraging or extending the capability of existing facilities and financing and these efforts result in significant cost estimate and/or risk reductions without loss or, or while enhancing capability.
A	In addition to satisfying all conditions for B+, *all* of the following conditions are also met: • The Laboratory is recognized by the research community as a leader for making the science case for the acquisition; • The Laboratory takes the initiative to demonstrate the potential for revolutionary scientific advancement working in partnership with HQ • The Laboratory identifies, analyzes, and champions, to HQ and Site office, novel approaches for acquiring the new capability, including leveraging or extending the capability of existing facilities and financing.
A-	In addition to satisfying all conditions for B+, *all* of the following conditions are also met: • The approaches proposed by the Laboratory are widely regarded as innovative, novel, comprehensive, and potentially cost-effective • Reviews repeatedly confirm potential for scientific discovery in areas that support the Department's mission, and potential to change a discipline or research area's direction.
B+	The Laboratory has achieved each of the following objectives: • The Laboratory displays leadership and commitment in the development of quality analyses, preliminary designs, and related documentation to support the approval of the mission need (CD-0), the alternative selection and cost range (CD-1) and the performance baseline (CD-2). • Documentation requested by the programs is provided in a timely and thorough manner. • The Laboratory keeps DOE appraised of the status, near-term plans and the resolution of problems on a regular basis; anticipates emerging issues that could impact plans and takes the initiative to inform DOE of possible consequences. • The Laboratory solves problems and addresses issues to avoid adverse impacts to the project.

Letter Grade	Definition
B	The Laboratory fails to meet expectations in one of the areas listed under B+.
B-	The Laboratory fails to meet expectations in several of the areas listed under B+
C	The Laboratory fails to meet the expectations in several of the areas listed under B+ AND the required analyses and documentation developed by the Laboratory are EITHER not innovative, OR reflect a lack of commitment and leadership.
D	The Laboratory fails to meet the expectations in several of the areas listed under B+ AND the Laboratory fails to provide a compelling justification for the acquisition.
F	The Laboratory fails to meet the expectations in several of the areas listed under B+ AND the approaches proposed by the Laboratory are based on fraudulent assumptions; the science case is weak to non-existent, and the business case is seriously flawed.

2.2 Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components (execution phase, post CD-2 to CD-4)

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The Laboratory's adherence to DOE Order 413.3 Project Management for the Acquisition of Capital Assets;
- Successful fabrication of facility components by the Laboratory;
- The Laboratory's effectiveness in meeting construction schedule and budget;
- The quality of key Laboratory staff overseeing the project(s); and
- The extent to which the Laboratory maintains open, effective, and timely communication with HQ regarding issues and risks.

Letter Grade	Definition
A+	In addition to satisfying all conditions for A, • There is high confidence throughout the execution phase that the project will be completed *significantly* under budget and/or ahead of schedule while meeting or exceeding all performance baselines;
A	In addition to satisfying all conditions for B+, • The Laboratory has identified and implemented practices that would allow the project scope to be *significantly expanded* if such were desirable, without impact on baseline cost or schedule; • The Laboratory *always* provides *exemplary* project status reports on time to DOE and takes the initiative to communicate emerging problems or issues. • Reviews identify environment, safety and health practices to be *exemplary*. • There is high confidence throughout the execution phase that the project will meet its cost/schedule performance baseline;
A-	In addition to satisfying all conditions for B+, • The Laboratory has identified practices that would allow for the project scope to be expanded if such were desirable, without impact on baseline cost or schedule; • Problems are identified and corrected by the Laboratory promptly, with no impact on scope, cost or schedule • The Laboratory provides *particularly useful* project status reports on time to DOE and regularly takes the initiative to communicate emerging problems or issues. • Reviews identify environment, safety and health practices to *exceed expectations*. • There is high confidence throughout the execution phase that the project will meet its cost/schedule performance baseline;

Letter Grade	Definition
B+	The Laboratory has achieved each of the following objectives • The project meets CD-2 performance measures; • The Laboratory provides sustained leadership and commitment to environment, safety and health; • Reviews regularly recognize the Laboratory for being proactive in the management of the execution phase of the project; • To a large extent, problems are identified and corrected by the Laboratory with little, or no impact on scope, cost or schedule; • DOE is kept informed of project status on a regular basis; reviews regularly indicate project is expected to meet its cost/schedule performance baseline.
B	The Laboratory provides sustained leadership and commitment to environment, safety and health BUT • The project fails to meet expectations in *one* of the remaining areas listed under B+.
B-	The Laboratory provides sustained leadership and commitment to environment, safety and health BUT • The project fails to meet expectations in *several* of the areas listed under B+
C	The Laboratory provides sustained leadership and commitment to environment, safety and health BUT The project fails to meet expectations in *several* of the areas listed under B+ AND • Reviews indicate project remains at risk of breaching its cost/schedule performance baseline; • Reports to DOE can vary in degree of completeness
D	The project fails to meet conditions for B+ in at least one of the following areas: • Reviews indicate project is likely to breach its cost/schedule performance baseline; • Laboratory commitment to environment, safety and health issues is inadequate; • Reports to DOE are largely incomplete; Laboratory commitment to the project has subsided.
F	The project fails to meet conditions for B+ in at least one of the following areas: • Laboratory falsifies data during project execution phase; • Shows disdain for executing the project within minimal standards for environment, safety or health, • Fails to keep DOE informed of project status; • Recent reviews indicate that the project is expected to breach its cost/schedule performance baseline.

2.3 Provide Efficient and Effective Operation of Facilities

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The availability, reliability, performance, and efficiency of Laboratory facility(ies);
- The degree to which the facility is optimally arranged to support the user community;
- The extent to which Laboratory R&D is conducted to develop/expand the capabilities of the facility(ies);
- The Laboratory's effectiveness in balancing resources between facility R&D and user support; and
- The quality of the process used to allocate facility time to users.

Letter Grade	Definition
A+	In addition to satisfying all conditions for B+; *all* of the following conditions are also met • Performance of the facility *exceeds* expectations as defined before the start of the year in all of these categories: cost of operations, users served, availability, and capability; • The schedule and the costs associated with the ramp-up to steady state operations are *significantly less* than planned and are acknowledged to be 'leadership caliber' by reviews; • Data on environment, safety, and health continues to be exemplary and widely regarded as among the 'best in class' • The Laboratory took extraordinary means to deliver an extraordinary result for the users and the program in the performance/ review period.
A	In addition to satisfying all conditions for B+; *all* of the following conditions are also met • Performance of the facility *exceeds* expectations as defined before the start of the year in most of these categories: cost of operations, users served, availability, and capability; • The schedule and the costs associated with the ramp-up to steady state operations are *less* than planned and are acknowledged to be 'leadership caliber' by reviews; • Data on environment, safety, and health continues to be *exemplary* and widely regarded as among the 'best in class.'
A-	In addition to satisfying all conditions for B+, *one* of the following conditions is met: • Performance of the facility *exceeds* expectations as defined before the start of the year in any of these categories: cost of operations, users served, availability, and capability; • The schedule and the costs associated with the ramp-up to steady state operations are *less* than planned and are acknowledged to be among the best by reviews;
B^+	The Laboratory has achieved each of the following objectives: • Performance of the facility *meets* expectations as defined before the start of the year in all of these categories: cost of operations, users served, availability, capability (for example, beam delivery, luminosity, peak performance, etc), • The schedule and the costs associated with the ramp-up to steady state operations occur as planned; • Data on environment, safety, and health continues to be very good as compared with other projects in the DOE. • User surveys meet program expectations and reflect that the Laboratory is responsive to user needs.
B	The project fails to meet expectations in *one* of the areas listed under B+.
B-	The project fails to meet expectations in *more than one* of the areas listed under B+.
C	Performance of the facility fails to meet expectations in *many* of the areas listed under B+; for example, • The cost of operations is unexpectedly high and availability of the facility is unexpectedly low, the number of users is unexpectedly low, capability is well below expectations. • The facility operates at steady state, on cost and on schedule, but the reliability of performance is somewhat below planned values, **or** the facility operates at steady state, but the associated schedule and costs exceed planned values. • Commitment to environment, safety, and health is satisfactory.
D	Performance of the facility fails to meet expectations in *many* of the areas listed under B+; for example, • The cost of operations is unexpectedly high and availability of the facility is unexpectedly low; capability is well below expectations. • The facility operates somewhat below steady state, on cost and on schedule, and the reliability of performance is somewhat below planned values, **or** the facility operates at steady state, but the associated schedule and costs exceed planned values. • Commitment to environment, safety, and health is inadequate.
F	• The facility fails to operate; the facility operates well below steady state **and/or** the reliability of the performance is well below planned values. • Laboratory commitment to environment, safety, and health issues is inadequate.

2.4 Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to External User Communities

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The extent to which the facility is being used to perform influential science;
- The Laboratory's efforts to take full advantage of the facility to generate impactful S&T results;
- The extent to which the facility is strengthened by a resident Laboratory research community that pushes the envelope of what the facility can do and/or are among the scientific leaders of the community;
- The Laboratory's ability to appropriately balance access by internal and external user communities; and
- The extent to which there is a healthy program of outreach to the scientific community.

Letter Grade	Definition
A+	In addition to meeting all measures under *A*, • The Laboratory took extraordinary means to deliver an extraordinary result for a new user community.
A	In addition to satisfying all conditions for B+; *all* of the following conditions are met • An *aggressive* outreach programs is in place and has been documented as attracting new communities to the facility; • Reviews consistently find that the facility capability or scope of research potential *significantly* exceeds expectations for example, due to newly discovered capabilities or exposure to new research communities; OR Reviews find that multiple disciplines are using the facility in new and novel ways that the facility is being used to pursue influential science.
A-	In addition to satisfying all conditions for B+, all of the following conditions are met • A *strong* outreach program is in place; • Reviews find that the facility capability or scope of research potential exceeds expectations for example, due to newly discovered capabilities or exposure to new research communities; OR Reviews document how multiple disciplines are using the facility in new and novel ways and/or that the facility is being used to pursue important science.
B^+	The Laboratory has achieved each of the following objectives: • Reviews find / validate that the facility is being used for influential science; • The scope of facility capabilities is challenged and broadened by resident users; • The Laboratory effectively manages user allocations; • The Laboratory effectively maintains the facility to required performance standards (for example, runtime, luminosity, etc) • A healthy outreach program is in place.
B	The Laboratory fails to meet expectations in *one* of the areas listed under B+
B-	The Laboratory fails to meet expectations in *several* of the areas listed under B+
C	The Laboratory fails to meet expectations in *many* of the areas listed under B+
D	Reviews find that there are few facility users, few of whom are using the facility in novel ways to produce impactful science; research base is very thin.
F	Laboratory staff does not possess capabilities to operate and/or use the facility adequately.

Notable Outcomes

- Execute LCLS-II assigned workscope as described in the Project Execution Plan. Provide effective and efficient management, design, and procurement of materials, equipment, and fabrication of technical components necessary to meet project cost and schedule. (Objective 2.1)

- Submit a revised proposal to create an Office of Science User Facility for Energy Frontier Physics that captures the Fermilab activities supporting the research using the Compact Muon Solenoid (CMS). (Objective 2.1)

- The beam power delivered to the NuMI target averaged over at least one week of running (minimum of 100 hours) must exceed 400 kilowatts. (Objective 2.3)

- Complete testing of the Muon g-2 superconducting storage ring by September 1, 2015 in order to determine the readiness of the Muon g-2 project to be baselined. (Objective 2.1)

- Achieve CD-3 approval for the LHC CMS Detector Upgrade Project. (Objective 2.2)

- Advance the pilot of the integrated-planning framework for the laboratory's portfolio of projects and programs. (Objective 2.2)

Science Program Office[4]	Letter Grade	Numerical Score	Weight	Overall Score
Office of High Energy Physics				
2.1 Provide Effective Facility Design(s)			25%	
2.2 Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components			45%	
2.3 Provide Efficient and Effective Operation of Facilities			30%	
2.4 Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to External User Communities			0%	
			Overall HEP Total	
Office of Basic Energy Sciences				
2.1 Provide Effective Facility Design(s)			100%	
2.2 Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components			0%	
2.3 Provide Efficient and Effective Operation of Facilities			0%	
2.4 Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to External User Communities			0%	
			Overall BES Total	

Table 2.1 – SC Program Office Performance Goal 2.0 Score Development

[4] A complete listing of the Objectives weightings under the S&T Goals for the SC Programs is provided within Attachment I to this plan.

Science Program Office	Letter Grade	Numerical Score	Funding Weight (cost)	Overall Weighted Score
Office of High Energy Physics				
Office of Basic Energy Sciences				
			Performance Goal 2.0 Total	

Table 2.2 – Overall Performance Goal 2.0 Score Development[5]

Total Score	**4.3-4.1**	**4.0-3.8**	**3.7-3.5**	**3.4-3.1**	**3.0-2.8**	**2.7-2.5**	**2.4-2.1**	**2.0-1.8**	**1.7-1.1**	**1.0-0.8**	**0.7-0**
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 2.3 –Goal 2.0 Final Letter Grade

[5] The final weights to be utilized for determining weighted scores will be determined following the end of the performance period and will be based on actual cost for FY 2015.

GOAL 3.0 Provide Effective and Efficient Science and Technology Program Management

The Laboratory provides effective program vision and leadership; strategic planning and development of initiatives; recruits and retains a quality scientific workforce; and provides outstanding research processes, which improve research productivity.

The weight of this Goal is 25%.

The Provide Effective and Efficient Science and Technology Program Management Goal shall measure the Contractor's overall management in executing S&T programs. Dimensions of program management covered include: 1) providing key competencies to support research programs to include key staffing requirements; 2) providing quality research plans that take into account technical risks, identify actions to mitigate risks; and 3) maintaining effective communications with customers to include providing quality responses to customer needs.

Each Objective within this Goal is to be assigned the appropriate numerical score by the Office of Science Program Office as identified below. The overall Goal score from each Program Office is computed by multiplying numerical scores earned by the weight of each Objective, and summing them (see Table 3.1).

- Office of High Energy Physics (HEP)

The overall performance score and grade for this Goal will be determined by multiplying the overall score assigned by each of the offices identified above by the weightings identified for each and then summing them (see Table 3.2 below). The overall score earned is then compared to Table 3.3 to determine the overall letter grade for this Goal. Individual Program Office weightings for each of the Objectives identified below are provided within Table 3.1. The Contractor's success in meeting each Objective shall be determined based on the Contractor's performance as viewed by the Office of Science Program Offices for which the Laboratory conducts work. Should one or more of the HQ Program Offices choose not to provide an evaluation for this Goal and its corresponding Objectives the weighting for the remaining HQ Program Offices shall be recalculated based on their percentage of cost for FY 2015 as compared to the total cost for those remaining HQ Program Offices.

Objectives

3.1 Provide Effective and Efficient Strategic Planning and Stewardship of Scientific Capabilities and Program Vision

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The quality of the Laboratory's strategic plan;
- The extent to which the Laboratory shows strategic vision for research
- The extent to which programs of research take advantage of Laboratory capabilities—research programs are more than the sum of their individual project parts;
- The extent to which the Laboratory undertakes research for which it is uniquely qualified;
- The extent to which lab plans are aligned with DOE mission goals;
- The extent to which the Laboratory programs are balanced between high-/low- risk research for a sustainable program; and
- The extent to which the Laboratory is able to retain and recruit staff for a sustainable program

The following is a sampling of factors to be considered in determining the level of performance for the Laboratory against this Objective. The evaluator(s) may consider the following as measured through progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.

- Articulation of scientific vision;
- Development and maintenance of core competencies,
- Ability to attract and retain highly qualified staff;
- Efficiency and effectiveness of joint planning (e.g., workshops) with outside community;
- Creativity and robustness of ideas for new facilities and research programs; and
- Willingness to take on high-risk/high payoff/long-term research problems, evidence that the Laboratory "guessed right" in that previous risky decisions proved to be correct and are paying off.
- The depth and breadth of Laboratory research portfolio and its potential for growth.

Letter Grade	Definition
A+	In addition to satisfying the conditions for B+, the execution of the Laboratory's strategic plan has enabled the Laboratory to achieve each of the following: • *Most* of the Laboratory's core competencies are recognized as world leading; • The Laboratory has attracted and retained world-leading scientists in *most* programs; • There is evidence that previous decisions to pursue high-risk/high-payoff research proved to be correct and are paying off; • The Laboratory has succeeded in developing new core competencies of *outstanding* quality in areas both exploratory, high-risk research and research that is vital to the DOE/SC missions;
A	In addition to satisfying the conditions for B+, the execution of the Laboratory's strategic plan has enabled the Laboratory to achieve the following: • *Several* of the Laboratory's core competencies are recognized as world leading; • The Laboratory has attracted and retained world-leading scientists in *several* programs; • There is evidence that previous decisions to pursue high-risk/high-payoff research proved to be correct and are paying off • The Laboratory has succeeded in developing *new* core competencies of *high* quality in areas both exploratory, high-risk research and research that is vital to the DOE/SC missions
A-	In addition to satisfying the conditions for B+, the execution of the Laboratory's strategic plan has enabled the Laboratory to achieve at least one of the following: • At least one of the Laboratory's core competencies is recognized as *world-leading*; • The Laboratory has attracted and retained *world-leading* scientists in one or more programs; • The Laboratory has a coherent plan for addressing future workforce challenges.
B+	The execution of the Laboratory's strategic plan has enabled the Laboratory to achieve each of the following objectives: • The Laboratory has articulated a coherent and compelling strategic plan that has been developed with input from external research communities and headquarters guidance, which, where appropriate, includes a coherent plan for building smaller research programs into new core competencies; and reallocates resources away from less effective programs. • The Laboratory has demonstrated the ability to attract and retain professional scientific staff in support of its strategic vision. • The portfolio of Laboratory research balances the needs for both high-risk/ high-payoff research and stewardship of mission-critical research. • The Laboratory's research portfolio takes advantage of unique capabilities at the Laboratory. • The Laboratory's research portfolio includes activities for which the Laboratory is uniquely capable.

Letter Grade	Definition
B	The Laboratory fails to satisfy one of the conditions for B+; for example • The Laboratory's strategic plan is only *partially* coherent and is not entirely well-connected with external communities; • The portfolio of Laboratory research does *not* appropriately balance high-risk/ high-payoff research and stewardship of mission-critical research; • The Laboratory has developed and maintained *some, but not all*, of its core competencies. • The plan to attract and retain professional scientific staff is *lacking* strategic vision.
B-	The Laboratory fails to satisfy *several* of the conditions for B+, including at least one of the following: • Weak programmatic vision insufficiently connected with external communities; • Development and maintenance of only a few core competencies • little attention to maintaining the correct balance between high-risk and mission-critical research; • inability to attract and retain talented scientists in some programs.
C	The Laboratory fails to satisfy *several* of the conditions for B+, including at least one of the following reasons: • The Laboratory's strategic plan lacks strategic vision and lacks appropriate coordination with appropriate stakeholders including external research groups. • The Laboratory's strategic plan does not provide for sufficient maintenance of core competencies • Plan to attract and retain professional scientific staff is unlikely to be successful or does not focus on strategic capabilities.
D	The Laboratory fails to satisfy *several* of the conditions for B+, and specifically • The Laboratory has demonstrated little effort in developing a strategic plan. • The Laboratory has done little to develop and maintain core competencies • The Laboratory has had minimal success in attracting and retaining professional scientific staff.
F	The Laboratory has: • Made limited or ineffective attempts to develop a strategic plan; • Not demonstrated the ability to develop and maintain core competencies, has failed to propose high-risk/high-reward research and has failed to steward mission-critical areas; • Failed to attract even reasonably competent scientists and technical staff.

3.2 Provide Effective and Efficient Science and Technology Project/Program/Facilities Management

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The Laboratory's management of R&D programs and facilities according to proposed plans;
- The extent to which the Laboratory's management of projects/programs/facilities supports the Laboratory strategic plan
- Adequacy of the Laboratory's consideration of technical risks;
- The extent to which the Laboratory is successful in identifying/avoiding technical problems;
- Effectiveness in leveraging across multiple areas of research and between research and facility capabilities;
- The extent to which the Laboratory demonstrates a willingness to make tough decisions (i.e., cut programs with sub-critical mass of expertise, divert resources to more promising areas, etc.); and
- The use of LDRD and other Laboratory investments and overhead funds to improve the competitiveness of the Laboratory.

The following is a sampling of factors to be considered in determining the level of performance for the Laboratory against this Objective. The evaluator(s) may consider the following as measured through progress reports, peer reviews, Field Work Proposals (FWPs), Program Office reviews/oversight, etc.

- Laboratory plans that are reviewed by experts outside of lab management and/or include broadly-based input from within the Laboratory.

Letter Grade	Definition
A+	In addition to meeting the all expectations under A, • The Laboratory has taken extraordinary measures to deliver an extraordinary result of critical importance to DOE missions, which could include the delivery of a critical technology or insight in response to a National emergency
A	In addition to satisfying the conditions for B+, • The Laboratory's implementation of project/program/facility plans has led directly to effective R&D programs/facility operations that exceed program expectations in *several* programmatic areas. Examples are listed under A-.
A-	In addition to satisfying the conditions for B+, • The Laboratory's implementation of project/program/facility plans has led directly to effective R&D programs/facility operations that exceed program expectations in *more than one* programmatic area. Examples of performance that exceeds expectations include: • The Laboratory's implementation of project/program/facility plans has led directly to significant cost savings and/or significantly higher productivity than expected; • Project/program/facility plans prove to be robust against changing scientific and fiscal conditions through contingency planning; • The Laboratory has demonstrated creativity and forceful leadership in development and/or proactive management of its project/program/facility plans to reduce or eliminate risk; • The Laboratory's proposals for new initiatives are funded through reallocation of resources from less effective programs. • Research plans and management actions are proactive, not reactive, as evidenced by making hard decisions and taking strong actions; and • Management is prepared for budget fluctuations and changes in DOE program priorities – multiple contingencies are planned for; and • LDRD investments, overhead funds, and other Laboratory funds are used to strengthen lab plans and fill critical gaps in the Laboratory portfolio enabling it to respond to future DOE initiatives and/or national emergencies;
B^+	The Laboratory has achieved each of the following objectives: • Project/program/facility plans exist for all major projects/programs/facilities. • Project/program/facility plans are consistent with known budgets, are based on reasonable assessments of technical risk, are well-aligned with DOE interests, provide sufficient flexibility to respond to unforeseen directives and opportunities, and effectively leverage other Laboratory resources and expertise. • The Laboratory has implemented the project/program/facility plans and has effective methods of tracking progress. • The Laboratory demonstrates willingness to make tough decisions (i.e., cut programs with sub-critical mass of expertise, divert resources to more promising areas, etc.). • The Laboratory's implementation of project/program/facility plans has led directly to effective R&D programs/facility operations. • LDRD investments and other overhead funds are managed appropriately.
B	• Project/program/facility plans exist for all major projects/programs/facilities. • The Laboratory has implemented the project/program/facility plans. BUT the Laboratory fails to meet *at least one of* the conditions for B+.
B-	• Project/program/facility plans exist for all major projects/programs/facilities. • The Laboratory has implemented the project/program/facility plans. BUT the Laboratory fails to meet *several of* the conditions for B+.
C	• Project/program/facility plans exist for most major projects/programs/facilities. BUT the Laboratory has failed to implement the project/program/facility plans AND the Laboratory fails to meet *several of* the conditions for B+.

Letter Grade	Definition
D	• Project/program/facility plans do not exist for a significant fraction of the Laboratory's major projects/programs/facilities; OR • Significant work at the Laboratory is not in alignment with the project/program/facility plans
F	The Laboratory has failed to conduct project/program/facility planning activities.

3.3 Provide Efficient and Effective Communications and Responsiveness to Headquarters Needs

In assessing the performance of the Laboratory against this Objective, the following assessment elements should be considered:

- The quality, accuracy and timeliness of the Laboratory's response to customer requests for information;
- The extent to which the Laboratory provides point-of-contact resources and maintains effective internal communications hierarchies to facilitate efficient determination of the appropriate point-of-contact for a given issue or program element;
- The effectiveness of the Laboratory's communications and depth of responsiveness under extraordinary or critical circumstances; and
- The effectiveness of Laboratory management in accentuating the importance of communication and responsiveness.

Letter Grade	Definition
A+	In addition to meeting the all expectations under A, • The Laboratory's effective communication and extraordinary responsiveness in the face of extreme situations or a national emergency had a materially positive impact on the outcome of the event and/or DOE mission objectives
A	In addition to satisfying the conditions for B+, the Laboratory also meets all of the following: • Laboratory management has instilled a culture throughout the lab that emphasizes good communication practices; • Communication channels are well-defined and information is effectively conveyed; • Responses to HQ requests for information from all Laboratory representatives are prompt, thorough, correct and succinct; important or critical information is delivered in real-time; • Laboratory representatives *always* initiate a communication with HQ on emerging Laboratory issues; headquarters is never surprised to learn of emerging Laboratory issues through outside channels.
A-	In addition to satisfying the conditions for B+, • Laboratory management has instilled a culture throughout the lab that emphasizes good communication practices; and • Responses to requests for information are prompt, thorough, and economical/succinct at all levels of interaction; • Laboratory representatives *often* initiate communication with HQ on emerging Laboratory issues; • under critical circumstances, essential information is delivered in real-time
B^+	The Laboratory has achieved each of the following objectives: • Staff throughout the Laboratory organization engage in good communication practices; • Responses to requests for information are prompt and thorough; • The accuracy and integrity of the information provided is never in doubt; • Up-to-date point-of-contact information is widely available for all programmatic areas; • Headquarters is always and promptly informed of both positive and negative events at the Laboratory
B	The Laboratory failed to meet the conditions for B+ *in a few instance*s

Letter Grade	Definition
B-	The Laboratory fails to meet the conditions for B+ for *one* of the following reasons: • Responses to requests for information do not provide the minimum requirements to meet HQ needs; While the integrity of the information provided is never in doubt, its accuracy sometimes is; • Laboratory representatives do not take the initiative to alert HQ to emerging Laboratory issues.
C	The Laboratory fails to meet the conditions for B+ for *one or more* of the following reasons: • Responses to requests for information frequently fail to provide the minimum requirements to meet HQ needs • The Laboratory used outside channels or circumvented HQ in conveying critical information; • The integrity and/or accuracy of information provided is sometimes in doubt; • Laboratory management fails to demonstrate that its employees are held accountable for ensuring effective communication and responsiveness; • Laboratory representatives failed to alert HQ to emerging Laboratory issues.
D	The Laboratory fails to meet the conditions for B+ for one of the following reasons: • Laboratory staff are generally well-intentioned in communication but consistently ineffective and/or incompetent; • The Laboratory management fails to emphasize the importance of effective communication and responsiveness
F	The Laboratory fails to meet the conditions for B+ for one of the following reasons • Laboratory staff are openly hostile and/or non-responsive to requests for information – emails and phone calls are consistently ignored; • Responses to requests for information are consistently incorrect, inaccurate or fraudulent – information is not organized, is incomplete, or is fabricated.

Notable Outcomes

- In order to respond to the relevant P5 recommendation, the lab should develop a new international collaboration for the Long Baseline Neutrino Experiment. Evidence for a new collaboration is an expression of interest or letter of intent submitted to the lab by a group that is significantly different from the LBNE collaboration as constituted before May 2014 P5 report. (Objective 3.1)

Science Program Office[6]	Letter Grade	Numerical Score	Weight	Overall Score
Office of High Energy Physics				
3.1 Effective and Efficient Strategic Planning and Stewardship			30%	
3.2 Project/Program /Facilities Management			45%	
3.3 Communications and Responsiveness			25%	
			Overall HEP Total	

Table 3.1 – SC Program Office Performance Goal 3.0 Score Development

[6] A complete listing of the Objectives weightings under the S&T Goals for the SC Programs is provided within Attachment I to this plan.

Science Program Office	Letter Grade	Numerical Score	Funding Weight	Overall Weighted Score
Office of High Energy Physics			25%	
			Performance Goal 3.0 Total	

Table 3.2 –Office Overall Performance Goal 3.0 Score Development[7]

Total Score	4.3-4.1	4.0-3.8	3.7-3.5	3.4-3.1	3.0-2.8	2.7-2.5	2.4-2.1	2.0-1.8	1.7-1.1	1.0-0.8	0.7-0
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 3.3 –Goal 3.0 Final Letter Grade

[7] The final weights to be utilized for determining weighted scores will be determined following the end of the performance period and will be based on actual cost for FY 2015.

Attachment I.

Program Office Objective Weightings
Office of Science

	HEP Weight	BES Weight
Goal 1.0 Mission Accomplishment	TBD	TBD
1.1 Impact	60%	0%
1.2 Leadership	40%	0%
Goal 2.0 Design, Fabrication, Construction and Operation of Facilities	TBD	
2.1 Design of Facility (the initiation phase and the definition phase, i.e. activities leading up to CD-2)	25%	
2.2 Construction of Facility / Fabrication of Components (execution phase, Post CD-2 to CD-4)	45%	
2.3 Operation of Facility	30%	
2.4 Utilization of Facility to Grow and Support Lab's Research Base and External User Community	0%	
Goal 3.0 Program Management	25%	
3.1 Effective and Efficient Strategic Planning and Stewardship	30%	
3.2 Project/Program/Facilities Management	45%	
3.3 Communications and Responsiveness	25%	

4.0 Provide Sound and Competent Leadership and Stewardship of the Laboratory

This Goal evaluates the Contractor's Leadership capabilities in leading the direction of the overall Laboratory, the responsiveness of the Contractor to issues and opportunities for continuous improvement, and corporate office involvement/commitment to the overall success of the Laboratory.

In measuring the performance of the above Objectives, the DOE evaluator(s) shall consider performance trends and outcomes in overall Contractor Leadership's planning for, integration of, responsiveness to and support for the overall success of the Laboratory. This may include, but is not limited to, the quality of Laboratory Vision/Mission strategic planning documentation and progress in realizing the Laboratory vision/mission; the ability to establish and maintain long-term partnerships/relationships with the scientific and local communities as well as private industry that advance, expand, and benefit the ongoing Laboratory mission(s) and/or provide new opportunities/capabilities; implementation of a robust assurance system; Laboratory and Corporate Office Leadership's ability to instill responsibility and accountability down and through the entire organization; overall effectiveness of communications with DOE; understanding, management and allocation of the costs of doing business at the Laboratory commensurate with associated risks and benefits; utilization of corporate resources to establish joint appointments or other programs/projects/activities to strengthen the Laboratory; and advancing excellence in stakeholder relations to include good corporate citizenship within the local community.

Objectives:

4.1 Leadership and Stewardship of the Laboratory

By which we mean: The performance of the laboratory's senior management team as demonstrated by their ability to do such things as:

- Define an exciting yet realistic scientific vision for the future of the laboratory,
- Make progress in realizing the vision for the laboratory,
- Establish and maintain long-term partnerships/relationships that maintain appropriate relations with the scientific and local communities, and
- Develop and leverage appropriate relations with private industry to the benefit of the laboratory and the U.S. taxpayer.

Letter Grade	Definition
A+	The Senior Leadership of the laboratory has made outstanding progress (on an order of magnitude scale) over the previous year in realizing their vision for the laboratory, and has had a demonstrable impact on the Department and the Nation. Strategic plans are of outstanding quality, have been externally recognized and referenced for their excellence, and have an impact on the vision/plans of other national laboratories. The Senior leadership of the laboratory may have been faced very difficult challenges and plotted, successfully, its own course through the difficulty, with minimal hand-holding by the Department. Partners in the scientific and local communities applaud the laboratory in national fora, and the Department is strengthened by this.
A	The Senior Leadership of the laboratory has made significant progress over the previous year in realizing their vision for the laboratory, and has through this has had a demonstrable positive impact on the Office of Science and the Department. Strategic plans are of outstanding quality, and recognize and reflect the vision/plans of other national laboratories. Faced with difficult challenges, actions were taken by the Senior leadership of the laboratory to redirect laboratory activities to enhance the long-term future of the laboratory. Partners in the scientific and local communities applaud the laboratory in national fora, and the Department is strengthened by this.
A-	The laboratory senior management performs better than expected (B+ grade) in these areas.

Letter Grade	Definition
B+	The Senior Leadership of the laboratory has made significant progress over the previous year in realizing their vision for the laboratory. Strategic plans present long range goals that are both exciting and realistic. Decisions and actions taken by the lab leadership align work, facilities, equipment and technical capabilities with the laboratory vision and plan. The Senior leadership of the laboratory faced difficult challenges and successfully plotted its own course through the difficulty, with help from the Department. Partners in the scientific and local communities are supportive of the laboratory.
B	The Senior Leadership of the laboratory has made little progress over the previous year in realizing their vision for the laboratory. Strategic plans present long range goals that are exciting and realistic; however DOE is not fully confident that the laboratory is taking the actions necessary for the goals to be achieved. The Laboratory is not fully engaged with its partners/relationships in the scientific and local communities to maximize the potential benefits these relations have for the laboratory.
C	The Senior Leadership of the laboratory has made no progress over the previous year in realizing their vision for the laboratory or aligning work, facilities, equipment and technical capabilities with the laboratory vision and plan. Strategic plans present long range goals that are either unexciting or unrealistic. Business plans exist, but they are not linked to the strategic plan and do not inspire DOE's confidence that the strategic goals will be achieved. Partnerships with the scientific and local communities with potential to advance the laboratory exist, but they may not always be consistent with the mission of or vision for the laboratory. Affected communities and stakeholders are mostly supportive of the laboratory and aligned with the management's vision for the laboratory.
D	The Senior Leadership of the laboratory has made no progress or has back-slid over the previous year in realizing their vision for the laboratory or in aligning work, facilities, equipment and technical capabilities with the laboratory vision and plan. Strategic plans present long range goals that are neither exciting nor realistic. Partnerships that may advance the Laboratory towards strategic goals are inappropriate, unidentified, or unlikely. Affected communities and stakeholders are not adequately engaged with the laboratory and indicate non-alignment with DOE priorities.
F	The Senior Leadership of the laboratory has made no progress or has back-slid over the previous year in realizing their vision for the laboratory or in or aligning work, facilities, equipment and technical capabilities with the laboratory vision and plan. Strategic plans present long range goals that are not aligned with DOE priorities or the mission of the laboratory. Partnerships that may advance the Laboratory towards strategic goals are inappropriate, unidentified, and unlikely, and/or the senior management team does not demonstrate a concerted effort to develop, leverage, and maintain relations with the scientific and local communities to assist the laboratory in achieving a successful future. Affected communities and stakeholders are openly non-supportive of the laboratory and DOE priorities.

4.2 Management and Operation of the Laboratory

By which we mean: The performance of the laboratory's senior management team as demonstrated by their ability to do such things as:

- Implement a robust contractor assurance system,
- Understand the costs of doing business at the laboratory and prioritize the management and allocation of these costs commensurate with their associated risks and benefits,
- Instill a culture of accountability and responsibility down and through the entire organization;
- Ensure good and timely communication between the laboratory and SC headquarters and the Site Office so that DOE can deal effectively with both internal and external constituencies.

Letter Grade	Definition
A+	The laboratory has a nationally or internationally recognized contractor assurance system in place that integrates internal and external (corporate) evaluation processes to evaluate risk, and is working to help others internal and external to the Department establish similarly outstanding practices. The laboratory understands the drivers of cost at their lab, and are prioritizing and managing these costs commensurate with the associated risks and benefits to the laboratory and the SC laboratory system. Laboratory management and processes reflect a sense of accountability and responsibility with is evident down and through the entire organization. Communication between the laboratory and SC headquarters and the Site Office is such that all the national laboratories and the Department as a whole benefits.
A	The laboratory has improved dramatically in the last year in all of the following: building a robust and transparent contractor assurance system that integrates internal and external (corporate) evaluation processes to evaluate risk; demonstrating the use of this system in making decisions that are aligned with the laboratory's vision and strategic plan; understanding the drivers of cost at their lab, and prioritizing and managing these costs consistent with their associated risks and benefits to the laboratory and the SC laboratory system; demonstrating laboratory management and processes reflect a sense of accountability and responsibility with is evident down and through the entire organization; assuring communication between the laboratory and SC headquarters that is beneficial to both the lab and SC.
A-	The laboratory senior management performs better than expected (B+ grade) in these areas.
B+	The laboratory has a robust and transparent contractor assurance system in place that integrates internal and external (corporate) evaluation processes to evaluate risk. The laboratory can demonstrate use of this system in making decisions that are aligned with the laboratory's vision and strategic plan. The laboratory understands the drivers of cost at their lab, and are prioritizing and managing these costs commensurate with the associated risks and benefits to the laboratory and the SC laboratory system. Laboratory management and processes reflect a sense of accountability and responsibility with is evident down and through the entire organization. Communication between the laboratory and SC headquarters and the Site Office is such that there are no surprises or embarrassments.
B	The laboratory has a contractor assurance system in place but further improvements are necessary, or the link between the CAS and the laboratory's decision-making processes are not evident. The laboratory understands the drivers of cost at their lab, but they are not prioritizing and managing these costs as well as they should to be commensurate with the associated risks and benefits to the laboratory and the SC laboratory system. Laboratory management and processes reflect a sense of accountability and responsibility with is mostly evident down and through the entire organization. Communication between the laboratory and SC headquarters and the Site Office is such that there are no significant surprises or embarrassments.
C	The laboratory lacks a robust and transparent contractor assurance system in place that integrates internal and external (corporate) evaluation processes to evaluate risk. The laboratory cannot demonstrate use of this system in making decisions that are aligned with the laboratory's vision and strategic plan. The laboratory does not fully understand the drivers of cost at their lab, and thus are not prioritizing and managing these costs as well as they should to be commensurate with the associated risks and benefits to the laboratory and the SC laboratory system. Communication between the laboratory and SC headquarters and the Site Office is such that there has been at least one significant surprise or embarrassment.
D	The laboratory lacks a contractor assurance system, doesn't understand the drivers of cost at their lab, and is not prioritizing and managing costs. SC HQ must intercede in management decisions. Poor communication between the laboratory and SC headquarters and the Site Office has resulted in more than one significant surprise or embarrassment.
F	Lack of management by the laboratory's senior management has put the future of the laboratory at risk, or has significantly hurt the reputation of the Office of Science.

4.3 Contractor Value-added

***By which we mean*:** the additional benefits that accrue to the laboratory and the Department of Energy by virtue of having this particular M&O contractor in place. Included here, typically, are things over which the laboratory leadership does not have immediate authority, such as:

- Corporate involvement/contributions to deal with challenges at the laboratory;
- Using corporate resources to establish joint appointments or other programs/projects/activities that strengthen the lab, and

- Providing other contributions to the laboratory that that enable the lab to do things that are good for the laboratory and its community and that DOE cannot supply.

Letter Grade	Definition
A+	The laboratory has been transformed as a result of the many, substantial, additional benefits that accrue to the lab as a result of this contractor's operation of the laboratory.
A	Over the past year, the laboratory has become demonstrably stronger, better and more attractive as a place of employment as a result of the many, substantial, additional benefits that accrue to the lab as a result of this contractor's operation of the laboratory.
A-	The laboratory senior management performs better than expected (B+ grade) in these areas.
B+	The laboratory enjoys additional benefits above and beyond those associated with managing the laboratory's activities that accrue as a result of this contractor's operation of the laboratory.
B	The laboratory enjoys few additional benefits that accrue as a result of this contractor's operation of the laboratory; help by the contractor is needed to strengthen the laboratory.
C	The laboratory enjoys few additional benefits that accrue as a result of this contractor's operation of the laboratory; the contractor seems unable to help the laboratory.
D	The laboratory enjoys few additional benefits that accrue as a result of this contractor's operation of the laboratory; the contractor's efforts are inconsistent with the interests of the laboratory and the Department.
F	The laboratory enjoys no additional benefits that accrue as a result of this contractor's operation of the laboratory; the contractor's efforts are counter-productive to the interests of the Department.

Notable Outcomes

- Complete changes to the makeup and focus of the FRA Board of Directors (Objective 4.3)

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Overall Score
Goal 4.0 – Provide Sound and Competent Leadership and Stewardship of the Laboratory				
4.1 Leadership and Stewardship of the Laboratory			33%	
4.2 Management and Operation of the Laboratory			33%	
4.3 Contractor Value-Added			34%	
Performance Goal 4.0 Total				

Table 4.1 – Performance Goal 4.0 Score Development

Total Score	4.3-4.1	4.0-3.8	3.7-3.5	3.4-3.1	3.0-2.8	2.7-2.5	2.4-2.1	2.0-1.8	1.7-1.1	1.0-0.8	0.7-0
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 4.2 – Goal 4.0 Final Letter Grade

5.0 Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection

The weight of this Goal is 30%.

This Goal evaluates the Contractor's overall success in deploying, implementing, and improving integrated ES&H systems that efficiently and effectively support the mission(s) of the Laboratory.

5.1 Provide an Efficient and Effective Worker Health and Safety Program
5.2 Provide Efficient and Effective Environmental Management System

In measuring the performance of the above Objectives, the DOE evaluator(s) shall consider performance trends and outcomes in protecting workers, the public, and the environment. This may include, but is not limited to, minimizing the occurrence of environment, safety and health (ESH) incidents; effectiveness of the Integrated Safety Management (ISM) system; effectiveness of work planning, feedback, and improvement processes; the strength of the safety culture throughout the Laboratory; the effective development, implementation and maintenance of an efficient and effective Environmental Management system; and the effectiveness of responses to identified hazards and/or incidents.

Notable Outcomes

- Implement more consistent and effective subcontractor safety oversight consistent with the findings of the Fourth Quarter FY14 Tripartite Assessment of the Fermilab Subcontractor Safety Program. (Objective 5.1)

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Overall Score
Goal 5.0 - Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection.				
5.1 Provide an Efficient and Effective Worker Health and Safety Program			50%	
5.2 Provide an Efficient and Effective Environmental Management System			50%	
Performance Goal 5.0 Total				

Table 5.1 – Performance Goal 5.0 Score Development

Total Score	4.3-4.1	4.0-3.8	3.7-3.5	3.4-3.1	3.0-2.8	2.7-2.5	2.4-2.1	2.0-1.8	1.7-1.1	1.0-0.8	0.7-0
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 5.2 – Goal 5.0 Final Letter Grade

GOAL 6.0 Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)

The weight of this Goal is 30%.

This Goal evaluates the Contractor's overall success in deploying, implementing, and improving integrated business systems that efficiently and effectively support the mission(s) of the Laboratory.

6.1 Provide an Efficient, Effective, and Responsive Financial Management System
6.2 Provide an Efficient, Effective, and Responsive Acquisition Management System and Property Management System
6.3 Provide an Efficient, Effective, and Responsive Human Resources Management System and Diversity Program
6.4 Provide Efficient, Effective, and Responsive Contractor Assurance Systems, including Internal Audit and Quality
6.5 Demonstrate Effective Transfer of Technology and Commercialization of Intellectual Assets

In measuring the performance of the above Objectives, the DOE evaluator(s) shall consider performance trends and outcomes in the development, deployment and integration of foundational program (e.g., Contractor Assurance, Quality, Financial Management, Acquisition Management, Property Management, and Human Resource Management) systems across the Laboratory. This may include, but is not limited to, minimizing the occurrence of management systems support issues; quality of work products; continual improvement driven by the results of audits, reviews, and other performance information; the integration of system performance metrics and trends; the degree of knowledge and appropriate utilization of established system processes/procedures by Contractor management and staff; benchmarking and performance trending analysis. The DOE evaluator(s) shall also consider the stewardship of the pipeline of innovations and resulting intellectual assets at the Laboratory along with impacts and returns created/generated as a result of technology transfer, work for others and intellectual asset deployment activities.

Notable Outcomes

- Improve acquisition planning tools to provide customers/projects insight into the procurement process. (Objective 6.2)

- Continue advancements in key elements of the Contractor Assurance System such as performance measurement, issues management, and self-assessment. (Objective 6.4)

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Overall Score
Goal 6.0 - Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)				
6.1 Provide an Efficient, Effective, and Responsive Financial Management System(s)			20%	
6.2 Provide an Efficient, Effective, and Responsive Acquisition Management System and Property Management System			25%	
6.3 Provide an Efficient, Effective, and Responsive Human Resources Management System and Diversity Program			20%	
6.4 Provide Efficient, Effective, and Responsive Contractor Assurance Systems, including Internal Audit and Quality			20%	
6.5 Demonstrate Effective Transfer of Technology and Commercialization of Intellectual Assets			15%	
Performance Goal 6.0 Total				

Table 6.1 – Performance Goal 6.0 Score Development

Total Score	**4.3-4.1**	**4.0-3.8**	**3.7-3.5**	**3.4-3.1**	**3.0-2.8**	**2.7-2.5**	**2.4-2.1**	**2.0-1.8**	**1.7-1.1**	**1.0-0.8**	**0.7-0**
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 6.2 – Goal 6.0 Final Letter Grade

GOAL 7.0 Sustain Excellence in Acquiring, Constructing, Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs

The weight of this Goal is 25%.

This Goal evaluates the overall effectiveness and performance of the Contractor in planning for, delivering, and operations of Laboratory facilities and equipment needed to ensure required capabilities are present to meet today's and tomorrow's mission(s) and complex challenges.

7.1 Manage Facilities and Infrastructure in an Efficient and Effective Manner that Optimizes Usage, Addresses Sustainability Goals, Minimizes Life Cycle Costs, and Ensures Site Capability to Meet Mission Needs

7.2 Provide Planning for and Acquire the Facilities and Infrastructure Required to Support the Continuation and Growth of Laboratory Missions and Programs

In measuring the performance of the above Objectives, the DOE evaluator(s) shall consider performance trends and outcomes in facility and infrastructure programs. This may include, but is not limited to, the management of real property assets to maintain effective operational safety, worker health, environmental protection and compliance, property preservation, and cost effectiveness; effective facility utilization, maintenance and budget execution; day-to-day management and utilization of space in the active portfolio; maintenance and renewal of building systems, structures and components associated with the Laboratory's facility and land assets; management of energy use, conservation, and sustainability practices; the integration and alignment of the Laboratory's comprehensive strategic plan with capabilities; facility planning, forecasting, and acquisition; the delivery of accurate and timely information required to carry out the critical decision and budget formulation process; quality of site and facility planning documents; and Cost and Schedule Performance Index performance for facility and infrastructure projects.

Notable Outcomes

- Continue efforts to realize the vision outlined in the Fermilab Campus Master Plan and Campus Strategy, including execution of the Utilities Upgrade Project funded (SLI) and GPP project portfolio within the approved schedules and budgets. (Objective 7.2)

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Overall Score
Goal 7.0 - Sustain Excellence in Acquiring, Constructing, Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs.				
7.1 Manage Facilities and Infrastructure in an Efficient and Effective Manner that Optimizes Usage, Addresses Sustainability Goals, Minimizes Life Cycle Costs, and Ensures Site Capability to Meet Mission Needs			50%	
7.2 Provide Planning for and Acquire the Facilities and Infrastructure Required to support the Continuation and Growth of Laboratory Missions and Programs			50%	
			Performance Goal 7.0 Total	

Table 7.1 – Performance Goal 7.0 Score Development

Total Score	**4.3-4.1**	**4.0-3.8**	**3.7-3.5**	**3.4-3.1**	**3.0-2.8**	**2.7-2.5**	**2.4-2.1**	**2.0-1.8**	**1.7-1.1**	**1.0-0.8**	**0.7-0**
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 7.2 – Goal 7.0 Final Letter Grade

GOAL 8.0 Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems

The weight of this Goal is 15%.

This Goal evaluates the Contractor's overall success in safeguarding and securing Laboratory assets that supports the mission(s) of the Laboratory in an efficient and effective manner and provides an effective emergency management program.

8.1 Provide an Efficient and Effective Emergency Management System
8.2 Provide an Efficient and Effective Cyber Security System for the Protection of Classified and Unclassified Information
8.3 Provide an Efficient and Effective Physical Security Program for the Protection of Special Nuclear Materials, Classified Matter, Classified Information, Sensitive Information, and Property

In measuring the performance of the above Objectives, the DOE evaluator(s) shall consider performance trends and outcomes in the safeguards and security, cyber security and emergency management program systems. This may include, but is not limited to, the commitment of leadership to strong safeguards and security, cyber security and emergency management systems; the integration of these systems into the culture of the Laboratory; the degree of knowledge and appropriate utilization of established system processes/procedures by Contractor management and staff; maintenance and the appropriate utilization of Safeguards, Security, and Cyber risk identification, prevention, and control processes/activities; and the prevention and management controls and prompt reporting and mitigation of events as necessary.

Notable Outcomes

- None

ELEMENT	Letter Grade	Numerical Score	Objective Weight	Overall Score
Goal 8.0 - Sustain and Enhance the Effectiveness of Integrated Safeguards and Security management (ISSM) and Emergency Management Systems.				
8.1 Provide an Efficient and Effective Emergency Management System			40%	
8.2 Provide an Efficient and Effective Cyber Security System for the Protection of Classified and Unclassified Information			45%	
8.3 Provide an Efficient and Effective Physical Security Program for the Protection of Special Nuclear Materials, Classified Matter, Classified Information, Sensitive Information, and Property			15%	
Performance Goal 8.0 Total				

Table 8.1 – Performance Goal 8.0 Score Development

Total Score	4.3-4.1	4.0-3.8	3.7-3.5	3.4-3.1	3.0-2.8	2.7-2.5	2.4-2.1	2.0-1.8	1.7-1.1	1.0-0.8	0.7-0
Final Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F

Table 8.2 – Goal 8.0 Final Letter Grade

ATTACHMENT J.3

APPENDIX C

SPECIAL DEMAND DEPOSIT ACCOUNT AGREEMENT FOR USE WITH THE PAYMENTS CLEARED FINANCING ARRANGEMENT

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

Fermi National Accelerator Laboratory

SUBCONTRACT NO. 601503

with

MB FINANCIAL BANK, N.A.

for

BANKING SERVICES

FOR THE PERIOD OF

SEPTEMBER 01, 2011 THROUGH AUGUST 31, 2014

with

TWO (2) 1-YEAR OPTIONS FOR PERIOD THROUGH AUGUST 31, 2016

Operated by Fermi Research Alliance, LLC
Under Contract with the
United States Department of Energy (DOE)

SPECIAL FINANCIAL INSTITUTION ACCOUNT AGREEMENT FOR USE WITH THE PAYMENTS CLEARED FINANCING ARRANGEMENT

Agreement entered into this, 1st day of September, 2011, between the UNITED STATES OF AMERICA, represented by the Department of Energy (hereinafter referred to as "DOE"), and Fermi Research Alliance (FRA), LLC, a corporation/legal entity existing under the Laws of the State of Illinois (hereinafter referred to as the Contractor or FRA) and MB Financial Bank, N.A, existing under the laws of the United States, located at 2607 Lincoln Hwy., St. Charles, IL 60175 (hereinafter referred to as the Financial Institution).

RECITALS

(a) On the effective date of September 01, 2011, DOE, the Bank and the Contractor (FRA) entered into Agreement(s) No. 601503, or a Supplemental Agreement(s) thereto, providing for the transfer of funds on a payments-cleared basis.

(b) DOE requires that amounts transferred to the Contractor (FRA) there under be deposited in a Special Demand Deposit Account at a Financial Institution covered by Treasury-approved Government deposit insurance organizations that are identified in 1 TFM 6-9000.

These special demand deposits must be kept separate from the Contractor's general or other funds, and the parties are agreeable to so depositing said amounts with the Financial Institution.

(c) The Special Demand Deposit Account shall be designated as "Fermi Research Alliance, LLC, United States Department of Energy Special Bank, Prime Contract No. DE AC02-07CH11359" account.

COVENANTS

In consideration of the foregoing, and for other good and valuable considerations, it is agreed that-

1. The Government shall have a title to the credit balance in said account to secure the repayment of all funds transferred to the Contractor, and said title shall be superior to any lien, title, or claim of the Financial Institution or others with respect to such accounts.

2. The Financial Institution shall be bound by the provisions of said Agreement(s) between DOE, the Bank and the Contractor relating to the transfer of funds into the and withdrawal of funds from the above Special Demand Deposit Account, which are hereby incorporated into this Agreement by reference, but the Financial Institution shall not be responsible for the application of funds withdrawn from said account. After receipt by the Financial Institution of directions from DOE, the Financial Institution shall act thereon and shall be under no liability to any party hereto for any action taken in accordance with the said written directions. Any written directions received by the Financial Institution from the Government upon DOE stationery and purporting to be signed by, or signed at the written direction of, the Government may, insofar as the rights, duties, and liabilities of the Financial Institution are concerned, be considered as having been properly issued and filed with the Financial Institution by DOE.
3. DOE, or its authorized representatives, shall have access to financial records maintained by the Financial Institution with respect to such Special Demand Deposit Account at all reasonable

3. DOE, or its authorized representatives, shall have access to financial records maintained by the Financial Institution with respect to such Special Demand Deposit Account at all reasonable times and for all reasonable purposes, including, but without limitation to, the inspection or copying of such financial records and any or all memoranda, checks, payment requests, correspondence, or documents pertaining thereto. Such financial records shall be preserved by the Financial Institution for a period of six (6) years after the final payment under the Agreement.

4. In the event of the service of any writ of attachment, levy of execution, or commencement of garnishment proceedings with respect to the Special Demand Deposit Account, the Financial Institution shall promptly notify DOE at:

   FSO/DOE
   Kirk Road & Wilson Street
   Batavia
   Illinois 60510-0500

5. DOE shall authorize funds that shall remain available to the extent that obligations have been incurred in good faith there under by the Contractor to the Financial Institution for the benefit of the Special Demand Deposit Account. The Financial Institution agrees to honor upon presentation for payment all payments issued by the Contractor and to restrict all withdrawals against the funds authorized to an amount sufficient to maintain the average daily balance in the Special Demand Deposit Account in a net positive and as close to zero as administratively possible.

   The Financial Institution agrees to service the account in this manner based on the requirements and specifications contained in FRA's Solicitation No. 042111-RFC, dated May 02, 2011. The Financial Institution agrees that per-item costs, detailed in the form "Schedule of Financial Institution Processing Charges" contained in the Financial Institution's aforesaid Proposal will remain constant during the term of this Agreement. The Financial Institution shall calculate the monthly fees based on services rendered and invoice the Contractor. The Contractor shall issue a check or automated clearinghouse authorization transfer to the Financial Institution in payment thereof.

6. The Financial Institution shall post collateral in accordance with 31 CFR 202 with the Federal Reserve bank in an amount equal to the net balances in all of the accounts included in this Agreement (including the noninterest-bearing time deposit account), less the Treasury-approved deposit insurance.

7. This Agreement, with all its provisions and covenants, shall be in effect for a term of three (3) years, beginning on the 1st day of September, 2011, and ending on the day of 31 August 2014, with two 1-year Options with a Term through August 31, 2016.

8. DOE, the Contractor, or the Financial Institution may terminate this Agreement at any time within the Agreement period upon submitting written notification to the other parties ninety (90) days prior to the desired termination date. The specific provisions for operating the account during this 90-day period are contained in Covenant 11.

9. DOE or the Contractor may terminate this Agreement at any time upon thirty (30) days' written notice to the Financial Institution if DOE or the Contractor, or both parties, find that the Financial Institution has failed to substantially perform its obligations under this Agreement or

that the Financial Institution is performing its obligation in a manner that precludes administering the program in an effective and efficient manner of that precludes the effective utilization of the Government's cash resources.

10. Notwithstanding the provisions of Covenants 8 and 9, in the event that the Agreement, referenced in Recital (a), between DOE and the Contractor is not renewed or is terminated, this Agreement between DOE, the Contractor, and the Financial Institution shall be terminated automatically upon the delivery of written notice to the Financial Institution.

11. In the event of termination, the Financial Institution agrees to retain the Contractor's Special Demand Deposit Account for an additional 90-day period to clear outstanding payment items.

This Agreement shall continue in effect for the 90-day additional period, with exception of the following:

1. Term Agreement (Covenant 7)

2. Termination of Agreement (Covenants 8 and 9)

The Financial Institution has submitted the forms entitled "Technical Representations and Certifications" and "Schedule of Financial Institution Processing Charges." These forms have been accepted by FRA and FSO/DOE and are incorporated herein with the document entitled "Financial Institution's information on Payments Cleared Financing Arrangement" as an integral part of this Agreement.

IN WITNESS WHEREOF the parties hereto have caused this Agreement, which consists of 5 pages, including the signature pages, to be executed as of the day and year first above written.

_____
Date Signed

By Rory S. Simpson
(Typed Name of DOE Contracting Officer)

_____
(Signature of DOE Contracting Officer)

08/31/2011

WITNESS

_____
(Typed Name of Witness)

_____
(Signature of Witness)

Note: In the case of a corporation, a witness is not required. Type or print names under all signatures.

Fermi Research Alliance, LLC
(Name of Contractor)

By David A. Carlson
(Typed Name of Contractor's Representative)

David A. Carlson
(Signature of Contractor's Representative)

Head, Business Services
(Title)

P.O. Box 500, Batavia, IL 60510
(Address)

8/23/11
(Date Signed)

Steve Nowak
(Name of Witness)

MB Financial Bank, N.A.
(Name of Financial Institution)

Mitchell E. Belon
(Name of Financial Institution Representative

(Signature of Witness)

(Signature of Financial Institution Representative)

Note: In the case of a corporation, a witness is not required. Type or print names under all signatures.

Senior Vice President
(Title)

2607 Lincoln Highway, St. Charles, IL 60175
(Address)

8/26/11
(Date Signed)

ATTACHMENT I

COMMERCIAL BANK'S REPRESENTATIONS AND CERTIFICATIONS

The bank makes the following representations and certifications as part of its bid to the Department of Energy to service a Special Demand Deposit Account Agreement for use with the Checks-Paid Method of Letter of Credit financing. Bidder must certify to the following or else their bid will be determined non-responsive and ineligible for award:

1. The bidder has a cash management system and controlled disbursement service that will be able to maintain the Recipient's daily account balance as close to zero as possible.

2. The bidder has the ability to drawdown funds from the Federal Reserve Bank on a daily basis before its closing time of 3:00 p.m.

3. The bidder has the ability to prepare a bank statement and account analysis on a monthly basis ~~in the format shown on Attachment 4 to the solicitation and~~ using the per item costs shown on Attachment 3 to the solicitation.

4. ~~The bidder has the ability to prepare, on a monthly basis, a bank statement of daily status of Federal Funds on hand in the format shown on Attachment 5 to the solicitation.~~

5. The bidder has the ability to mail the statements described in (3) and (4) above to the ~~Procurement Supervisor and the Recipient~~ Accounting Dep no later that 10 days following the end of the reporting period.

6. The bidder will establish only one Special Demand Account with controlled disbursement sub-accounts.

7. As necessary, the bidder will pledge collateral, acceptable under Treasury Department Circular 176 and the Treasury Financial Manual, with the Federal Reserve Bank in an amount equal to the Federal funds deposited in all of the accounts included in this agreement, less the Treasury-approved deposit insurance.

8. The bidder resides within the Chicago Federal Reserve Bank District or has an account with a correspondent bank that resides within the Chicago Federal Reserve Bank District.

MB Financial Bank acknowledges and meets the above listed representations and certifications required by the Department of Energy.

, SVP

Mitchell Belon

5/18/11

Date

ATTACHMENT 2

SAMPLE TECHNICAL REPRESENTATIONS AND CERTIFICATIONS

The financial institution makes the following technical representations and certifications as part of its bid to the Department of energy to service a payments cleared financing arrangement. (Check parentheses and complete blanks, as appropriate. All information is necessary.)

1. Financial Institution Fiscal Information

   a. The financial institution is a (✓) national chartered financial institution ( ) State chartered financial institution organized and existing in the ~~Sate of~~ ~~Delaware~~ United States. RFP

   b. The financial institution (✓) maintains ( ) does not maintain an account with a Federal Reserve Banks.

   c. The current (✓) Federal ( ) State time deposit reserve requirement for the financial institution is 10 %.

   d. The financial institution insures all ~~time~~ account for maximum allowable amount under federally approved deposit insurance (✓) Yes ( ) No. Deposits are insured by a Government deposit insurance organization approved by the Treasury (a list of approved insurance organizations is attached to this form). If no, explain:

   e. The financial institution has direct online access to the Federal Reserve communications System (FRCS). If no, explain:

   f. To receive same-day credit from the Federal Reserve, the financial institution can ascertain the amount of payments cleared net of the amount of any deposits and submit a payment request through the FRCS by 4:00 p.m. Eastern Time.

2. Minority Business Enterprises

   Is the financial institution a minority-owned or minority-controlled institution, eligible to participate in the Treasury Minority Bank Deposit Program (MBDP)? ( ) Yes (✓) No

   Information about eligibility and enrollment in the MBDP program is available on the Treasury website at www.fms.treas.gov.

3. Technical

   a. Does the financial institution currently service and reconcile an account with a payment volume equal to or exceeding the anticipated volume required by the contractor as stated in the "Schedule of Financial Institution Processing Charges"?

   Service (✓) Yes ( ) No Reconciliation: (✓) Yes ( ) No

   b. What is the highest number of payments serviced and reconciled for a single account?

   Service: 1,190,000 yr. Reconciliation: 1,190,000 yr.

MH

3A

mb financial bank

Pricing Proforma for: Fermi Research Alliance, LLC

Current Pricing

PRODUCT/SERVICE	VOLUME	PRICE	CHARGE	CHARGE
Checking Services				
Corporate Checking Account Maintenance	2	$ 30.00	$ 60.00	$ 720.00
Corporate Reduced Maintenance		$ 10.00	$ -	$ -
Checks Paid	1875	$ 0.14	$ 262.50	$ 3,150.00
Deposits		$ 3.75	$ -	$ -
Deposited Item - On Us		$ 0.22	$ -	$ -
Deposited Item - Chicago (Local City)		$ 0.22	$ -	$ -
Deposited Item - Fed RCPC		$ 0.23	$ -	$ -
Deposited Item - Transit		$ 0.24	$ -	$ -
Deposited Item - US Treasury		$ 0.24	$ -	$ -
General Banking Services				
FDIC Assessment	13800	$ 0.10	$ 1.38	$ 16.56
Borrowed Funds Charge		$ 0.09	$ -	$ -
Weekend Overdraft Fee		$ 15.00	$ -	$ -
OD Consecutive Day Fee per day		$ 12.00	$ -	$ -
NSF		$ 44.00	$ -	$ -
Foreign Item Deposited		$ 5.00	$ -	$ -
ACH Credit Received	22	$ 0.13	$ 2.86	$ 34.32
ACH Debit Received	87	$ 0.13	$ 11.31	$ 135.72
Stop Payment		$ 40.00	$ -	$ -
Chargebacks		$ 4.50	$ -	$ -
Re-deposit Chargebacks (returns)		$ 6.00	$ -	$ -
MB Web Express				
Web Express Balance reporting only - 1st account		$ 50.00	$ -	$ -
Web Express Small Bal Rep only - add'l accounts		$ 20.00	$ -	$ -
Web Express	1	$ 70.00	$ 70.00	$ 840.00
Web Express -Additional Accts	1	$ 25.00	$ 25.00	$ 300.00
Web Express Stop Payments	6	$ 12.50	$ 75.00	$ 900.00
Web Express Expanded History		$ 25.00	$ -	$ -
Web Express CD Acct		$ 10.00	$ -	$ -
Lost Token		$ 50.00	$ -	$ -
Controlled Disbursement				
Controlled Disbursement		$ 100.00	$ -	$ -
Per Item		$ 0.06	$ -	$ -
Controlled Disbursement Reporting		$ 50.00	$ -	$ -
ACH Services				
ACH Module	1	$ 35.00	$ 35.00	$ 420.00
ACH via ADP or other 3rd party vendor		$ 40.00	$ -	$ -
ACH Direct		$ 40.00	$ -	$ -
ACH Origination Items	8939	$ 0.12	$ 1,072.68	$ 12,872.16
Standing ACH Transactions		$ 5.00	$ -	$ -
ACH Reversal		$ 12.00	$ -	$ -
ACH Debit/Credit Return	6	$ 12.00	$ 72.00	$ 864.00
ACH NOC		$ 1.50	$ -	$ -
ACH Prenote		$ 1.00	$ -	$ -
ACH Trancode Blocking per month		$ 20.00	$ -	$ -
ACH Express		$ 30.00	$ -	$ -
Wire Transfer Services				
Domestic Incoming Wire	48	$ 8.50	$ 408.00	$ 4,896.00
Foreign Incoming Wire		$ 10.50	$ -	$ -
Wire Module		$ 30.00	$ -	$ -
Domestic or Foreign USD Outgoing Wire Online		$ 8.00	$ -	$ -
Foreign FX Outgoing Wire via ETD		$ 10.00	$ -	$ -
Foreign FX Outgoing Wire Manual	14	$ 25.00	$ 350.00	$ 4,200.00
Domestic Outgoing Wire Manual	17	$ 25.00	$ 425.00	$ 5,100.00
Foreign USD Outgoing Wire Manual		$ 75.00	$ -	$ -
Standing Wire Order Monthly Maintenance		$ 150.00	$ -	$ -
Repetitive Domestic Wire		$ 8.00	$ -	$ -
Repetitive Foreign Wire		$ 8.00	$ -	$ -
Incoming Wire Notification - EMAIL		$ 30.00	$ -	$ -
Incoming Wire Notification - FAX		$ 30.00	$ -	$ -
Wire Account Masking	1	$ 20.00	$ 20.00	$ 240.00
Wire Transfer for ACH		$ 15.00	$ -	$ -
MB Deposit Express				
Deposit Express Monthly Maintenance		$ 75.00	$ -	$ -
CAR LAR Monthly Maintenance		$ 25.00	$ -	$ -
Additional Accounts		$ 25.00	$ -	$ -
Deposit Express Image Capture		$ 0.25	$ -	$ -
Deposit Express Deposits		$ 1.25	$ -	$ -
Account Reconciliation Services				
Full ARP Monthly Maintenance		$ 80.00	$ -	$ -
Partial ARP File Transfer	2	$ 17.50	$ 35.00	$ 420.00
Recon Paid item		$ 0.07	$ -	$ -
Deposit Reporting		$ 50.00	$ -	$ -
Deposit Reporting items		$ 0.10	$ -	$ -
Positive Pay Services				
Positive Pay		$ 50.00	$ -	$ -
Positive Pay item		tbd	$ -	$ -
Additional Reports		$ 25.00	$ -	$ -
Failure to provide issued file/Exception		$ 10.00	$ -	$ -
Manual Issue Item		$ 5.00	$ -	$ -
PosPay Stale Check Maintenance		$ 25.00	$ -	$ -
ACH Positive Pay Maintenance		$ 30.00	$ -	$ -
ACH Block		$ 20.00	$ -	$ -
Tax Payment (Including Receipt)		$ 7.00	$ -	$ -
Service Charge Total			**$ 2,925.73**	**$ 35,108.76**

3B

mb financial bank

Pricing Proforma for: Fermi Research Alliance, LLC

Proposed Pricing

Three Year Contract 8/1/2011 - 7/31/2014
One Year Option 8/1/2014 - 7/31/2015
One Year Option 8/1/2015 - 7/31/2016

PRODUCT/SERVICE	VOLUME	PRICE	CHARGE	ANNUAL CHARGE
Checking Services				
Corporate Checking Account Maintenance	2	$ 45.00	$ 90.00	$ 1,080.00
Corporate Reduced Maintenance		$ 10.00	$ -	$ -
Checks Paid	1875	$ 0.25	$ 468.75	$ 5,625.00
Deposits		$ 3.75	$ -	$ -
Deposited Item - On Us		$ 0.22	$ -	$ -
Deposited Item - Chicago (Local City)		$ 0.22	$ -	$ -
Deposited Item - Fed RCPC		$ 0.23	$ -	$ -
Deposited Item - Transit		$ 0.24	$ -	$ -
Deposited Item - US Treasury		$ 0.24	$ -	$ -
General Banking Services				
FDIC Assessment	13800	$ 0.10	$ 1.38	$ 16.56
Borrowed Funds Charge		$ 0.09	$ -	$ -
Weekend Overdraft Fee		$ 15.00	$ -	$ -
OD Consecutive Day Fee per day		$ 12.00	$ -	$ -
NSF		$ 44.00	$ -	$ -
Foreign Item Deposited		$ 5.00	$ -	$ -
ACH Credit Received	22	$ 0.50	$ 11.00	$ 132.00
ACH Debit Received	87	$ 0.35	$ 30.45	$ 365.40
Stop Payment		$ 40.00	$ -	$ -
Chargebacks		$ 4.50	$ -	$ -
Re-deposit Chargebacks (returns)		$ 6.00	$ -	$ -
MB Web Express				
Web Express Balance reporting only - 1st account		$ 50.00	$ -	$ -
Web Express Small Bal Rep only - add'l accounts		$ 20.00	$ -	$ -
Web Express	1	$ 130.00	$ 130.00	$ 1,560.00
Web Express -Additional Accts	1	$ 40.00	$ 40.00	$ 480.00
Web Express Stop Payments	6	$ 15.00	$ 90.00	$ 1,080.00
Web Express Expanded History		$ 25.00	$ -	$ -
Web Express CD Acct		$ 10.00	$ -	$ -
Lost Token		$ 50.00	$ -	$ -
Controlled Disbursement				
Controlled Disbursement		$ 100.00	$ -	$ -
Per Item		$ 0.06	$ -	$ -
Controlled Disbursement Reporting		$ 50.00	$ -	$ -
ACH Services				
ACH Module	1	$ 40.00	$ 40.00	$ 480.00
ACH via ADP or other 3rd party vendor		$ 40.00	$ -	$ -
ACH Direct		$ 40.00	$ -	$ -
ACH Origination Items	8939	$ 0.12	$ 1,072.68	$ 12,872.16
Standing ACH Transactions		$ 5.00	$ -	$ -
ACH Reversal		$ 12.00	$ -	$ -
ACH Debit/Credit Return	6	$ 7.50	$ 45.00	$ 540.00
ACH NOC		$ 1.50	$ -	$ -
ACH Prenote		$ 1.00	$ -	$ -
ACH Trancode Blocking per month		$ 20.00	$ -	$ -
ACH Express		$ 30.00	$ -	$ -
Wire Transfer Services				
Domestic Incoming Wire	48	$ 8.50	$ 408.00	$ 4,896.00
Foreign Incoming Wire		$ 10.50	$ -	$ -
Wire Module	1	$ 30.00	$ 30.00	$ 360.00
Domestic or Foreign USD Outgoing Wire Online	31	$ 8.00	$ 248.00	$ 2,976.00
Foreign FX Outgoing Wire via ETD		$ 10.00	$ -	$ -
Foreign FX Outgoing Wire Manual		$ 25.00	$ -	$ -
Domestic Outgoing Wire Manual		$ 25.00	$ -	$ -
Foreign USD Outgoing Wire Manual		$ 75.00	$ -	$ -
Standing Wire Order Monthly Maintenance		$ 150.00	$ -	$ -
Repetitive Domestic Wire		$ 8.00	$ -	$ -
Repetitive Foreign Wire		$ 8.00	$ -	$ -
Incoming Wire Notification - EMAIL		$ 30.00	$ -	$ -
Incoming Wire Notification - FAX		$ 30.00	$ -	$ -
Wire Account Masking	1	$ 20.00	$ 20.00	$ 240.00
Wire Transfer for ACH		$ 15.00	$ -	$ -
Account Reconciliation Services				
Full ARP Monthly Maintenance		$ 80.00	$ -	$ -
Partial ARP File Transfer	2	$ 20.00	$ 40.00	$ 480.00
Recon Paid item		$ 0.07	$ -	$ -
Deposit Reporting		$ 50.00	$ -	$ -
Deposit Reporting items		$ 0.10	$ -	$ -
Positive Pay Services				
Positive Pay	2	$ 50.00	$ 100.00	$ 1,200.00
Positive Pay item		tbd	$ -	$ -
Additional Reports		$ 25.00	$ -	$ -
Failure to provide issued file/Exception		$ 10.00	$ -	$ -
Manual Issue Item		$ 5.00	$ -	$ -
PosPay Stale Check Maintenance		$ 25.00	$ -	$ -
ACH Positive Pay Maintenance		$ 30.00	$ -	$ -
ACH Block		$ 20.00	$ -	$ -
Total Service Charge			**$ 2,865.26**	**$ 34,383.12**

3C

mb financial bank

Pricing Proforma for:

Fermi Research Alliance, LLC

Proposed Pricing (Manual Wire Processing)

Three Year Contract 8/1/2011 - 7/31/2014
One Year Option 8/1/2014 - 7/31/2015
One Year Option 8/1/2015 - 7/31/2016

PRODUCT/SERVICE	VOLUME	PRICE	CHARGE	ANNUAL CHARGE
Checking Services				
Corporate Checking Account Maintenance	2	$ 45.00	$ 90.00	$ 1,080.00
Corporate Reduced Maintenance		$ 10.00	$ -	$ -
Checks Paid	1875	$ 0.25	$ 468.75	$ 5,625.00
Deposits		$ 3.75	$ -	$ -
Deposited Item - On Us		$ 0.22	$ -	$ -
Deposited Item - Chicago (Local City)		$ 0.22	$ -	$ -
Deposited Item - Fed RCPC		$ 0.23	$ -	$ -
Deposited Item - Transit		$ 0.24	$ -	$ -
Deposited Item - US Treasury		$ 0.24	$ -	$ -
General Banking Services				
FDIC Assessment	13800	$ 0.10	$ 1.38	$ 16.56
Borrowed Funds Charge		$ 0.09	$ -	$ -
Weekend Overdraft Fee		$ 15.00	$ -	$ -
OD Consecutive Day Fee per day		$ 12.00	$ -	$ -
NSF		$ 44.00	$ -	$ -
Foreign Item Deposited		$ 5.00	$ -	$ -
ACH Credit Received	22	$ 0.50	$ 11.00	$ 132.00
ACH Debit Received	87	$ 0.35	$ 30.45	$ 365.40
Stop Payment		$ 40.00	$ -	$ -
Chargebacks		$ 4.50	$ -	$ -
Re-deposit Chargebacks (returns)		$ 6.00	$ -	$ -
MB Web Express				
Web Express Balance reporting only - 1st account		$ 50.00	$ -	$ -
Web Express Small Bal Rep only - add'l accounts		$ 20.00	$ -	$ -
Web Express	1	$ 130.00	$ 130.00	$ 1,560.00
Web Express -Additional Accts	1	$ 40.00	$ 40.00	$ 480.00
Web Express Stop Payments	6	$ 15.00	$ 90.00	$ 1,080.00
Web Express Expanded History		$ 25.00	$ -	$ -
Web Express CD Acct		$ 10.00	$ -	$ -
Lost Token		$ 50.00	$ -	$ -
Controlled Disbursement				
Controlled Disbursement		$ 100.00	$ -	$ -
Per Item		$ 0.06	$ -	$ -
Controlled Disbursement Reporting		$ 50.00	$ -	$ -
ACH Services				
ACH Module	1	$ 40.00	$ 40.00	$ 480.00
ACH via ADP or other 3rd party vendor		$ 40.00	$ -	$ -
ACH Direct		$ 40.00	$ -	$ -
ACH Origination Items	8939	$ 0.12	$ 1,072.68	$ 12,872.16
Standing ACH Transactions		$ 5.00	$ -	$ -
ACH Reversal		$ 12.00	$ -	$ -
ACH Debit/Credit Return	6	$ 7.50	$ 45.00	$ 540.00
ACH NOC		$ 1.50	$ -	$ -
ACH Prenote		$ 1.00	$ -	$ -
ACH Trancode Blocking per month		$ 20.00	$ -	$ -
ACH Express		$ 30.00	$ -	$ -
Wire Transfer Services				
Domestic Incoming Wire	48	$ 8.50	$ 408.00	$ 4,896.00
Foreign Incoming Wire		$ 10.50	$ -	$ -
Wire Module		$ 30.00		$ -
Domestic or Foreign USD Outgoing Wire Online		$ 8.00		$ -
Foreign FX Outgoing Wire via ETD		$ 10.00	$ -	$ -
Foreign FX Outgoing Wire Manual		$ 25.00	$ -	$ -
Domestic Outgoing Wire Manual	17	$ 25.00	$ 425.00	$ 5,100.00
Foreign USD Outgoing Wire Manual	14	$ 75.00	$ 1,050.00	$ 12,600.00
Standing Wire Order Monthly Maintenance		$ 150.00	$ -	$ -
Repetitive Domestic Wire		$ 8.00	$ -	$ -
Repetitive Foreign Wire		$ 8.00	$ -	$ -
Incoming Wire Notification - EMAIL		$ 30.00	$ -	$ -
Incoming Wire Notification - FAX		$ 30.00	$ -	$ -
Wire Account Masking	1	$ 20.00	$ 20.00	$ 240.00
Wire Transfer for ACH		$ 15.00	$ -	$ -
Account Reconciliation Services				
Full ARP Monthly Maintenance		$ 80.00	$ -	$ -
Partial ARP File Transfer	2	$ 20.00	$ 40.00	$ 480.00
Recon Paid item		$ 0.07	$ -	$ -
Deposit Reporting		$ 50.00	$ -	$ -
Deposit Reporting items		$ 0.10	$ -	$ -
Positive Pay Services				
Positive Pay	2	$ 50.00	$ 100.00	$ 1,200.00
Positive Pay item		tbd	$ -	$ -
Additional Reports		$ 25.00	$ -	$ -
Failure to provide issued file/Exception		$ 10.00	$ -	$ -
Manual Issue Item		$ 5.00	$ -	$ -
PosPay Stale Check Maintenance		$ 25.00	$ -	$ -
ACH Positive Pay Maintenance		$ 30.00	$ -	$ -
ACH Block		$ 20.00	$ -	$ -
Total Service Charge			**$ 4,062.26**	**$ 48,747.12**

FINANCIAL INSTITUTION'S INFORMATION ON PAYMENTS CLEARED FINANCING ARRANGEMENT

1. GENERAL INFORMATION

Payments cleared funding is a method used by the Federal Government to provide funds to a contractor who is performing services or providing goods to the Department of Energy (DOE). Under this method, the contractor issues payments for program purposes. When these payments clear the financial institution, the payments are totaled, and the financial institution draws funds from an Automated Standard Application for Payment (ASAP) 1031 system account at the Federal Reserve Bank (FRB-Richmond) of Richmond for credit to the account at the contractor's account. The financial institution is compensated for services performed in the form of direct payment of fee. Information necessary to bid for and operate such an account and to establish the reporting requirements the financial institution must meet are provided below.

2. BIDDING INFORMATION

a. Upon receipt of the solicitation from DOE, the financial institution representative should review the package to ensure that all material listed in the covering letter has been included. If anything is missing, the financial institution representative should contact the DOE representative named in the letter to obtain the missing material. If all material is present, the financial institution representative should review the bidding procedures, the operating procedures, the reporting requirements, and the sample agreement. Questions should be directed to the designated DOE representative.

b. Once the procedures and requirements are understood and the financial institution's management decides to submit a proposal, the procedures below should be followed:

(1) Check or complete all responses contained in the "Technical Representations and Certifications" form.

(2) Complete the "Schedule of Financial Institution Processing Charges" form.

(3) Ensure that all required information has been provided before forwarding the completed forms to the designated DOE representative. These forms constitute the financial institution's formal proposal to DOE. Incomplete proposals will not be considered.

(4) Forward the completed proposal with a cover letter to the DOE

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representative at the address provided. Proposals not received by the date established for submission will not be considered.

c. Bidders will be notified, by letter, of the financial institution selected within 30 calendar days after the close of the bidding period.

d. The selected financial institution will meet with the designated DOE representative to clarify any operational questions and to sign the contractual agreement and required corporate certificates for both the contractor and financial institution. The agreement term will be determined by the DOE representative, but normally will be for a period of not less than 2 years and not more than 5 years. Specific termination provisions are contained in the agreement for termination before the date specified in the agreement.

3. OPERATING REQUIREMENTS

a. The financial institution will total the payments cleared against the special account and subtract any deposits. This sum will be drawn from the ASAP 1031 account at FRB-Richmond. The amount of the drawdown should be sufficient to maintain the account balance net positive and as close to zero as administratively possible. The institution must determine the cutoff time for processing payments and deposits to ensure same day credit. The drawdown is effected by sending an online request for funds (type code 1031) to FRB-Richmond via Fedwire by 5:45 p.m. Eastern Time. The DOE finance office will provide the financial institution with enrollment forms that will permit withdrawal of funds from the ASAP 1031 account at FRB-Richmond. The institution will complete the forms and return them to DOE for further processing.

b. If the financial institution providing these services is a branch of a parent institution, the drawdown on ASAP 1031 and subsequent transfer of funds from FRB-Richmond must be accomplished in time for the branch to receive same-day credit for the funds requested.

4. COMPENSATION

The institution will be paid by the contractor under the direct payment method.

5. PENALTIES ON EXCESS FUNDS

If the financial institution has a pattern of excess drawdowns and fails to correct the problem after written notice from the Department, the financial institution will be assessed interest on all excess balances at the Federal Funds Rate for the month(s), and the special financial institution account agreement will be terminated. Penalties will be remitted to the cognizant DOE finance office.

MB

6. REPORTING REQUIREMENTS

The financial institution will provide the contractor with a bank statement and an account analysis monthly. The account analysis will include the data necessary for the DOE finance office to determine that the costs of the services are commensurate with the level of compensation being provided to the financial institution, and the average daily demand account balance is being maintained net positive and as close to zero as administratively possible.

MB

The Bank would have to provide the following services for Fermi National Accelerator Laboratory:

1. Two accounts
   A. Voucher account
   B. Payroll account

2. Provide secure, web-based system with all account information which would include:
   A. Detail of opening balances
   B. Listing of checks for each account with supporting documentation
   C. Adjustments or corrections with supporting documentation
   D. Incoming and outgoing wire transfers with supporting documentation
   E. Foreign deposits with detailed documentation
   F. Deposits with detail
   G. Total letter of credit draw with verification from the Federal Treasury to Fermilab and DOE
   H. Incoming and outgoing ACH transactions with supporting documentation

3. Deposits
   A. Direct deposits from Fermilab
   B. Other deposits that may occur

4. On-line stop payment services

5. Foreign transactions
   A. Foreign wire transfers, incoming and outgoing
   ~~B. Foreign drafts, incoming and outgoing~~

6. Wire transfers, incoming and outgoing

7. Electronic transfer of tax payments
   A. Federal tax payments to the Treasury using the EFTPS
   B. Various state tax payments using each state's payment system

8. Monthly bank statements for payroll and voucher account
   A. Checks to be sorted in numerical order
   B. Statements to be received by the 10th of the following month

9. Bank reconciliation monthly
   A. Downloadable electronic file provided for the payroll account
   B. Downloadable electronic file provided for the voucher account
   C. Checks to be sorted in numerical order
   D. Files to be available no later than the 10th day of the following month

MB

10. ACH electronic transmission for payroll direct deposit

11. Facility for the electronic transfer of information, especially payroll information for direct deposit and online access to Fermilab account information

12. Provide method for obtaining acceptable images of check copies
    A. CD images
    B. Images with bank statement

13. Fee credit to be given for interest earned on Treasury tax payments

14. ACH services for benefits collections

15. Positive pay services for all accounts

16. Masked account information for incoming wires

17. Secure ACH services for designated payments

18. Commercial bank's representations and certifications (See attachment 1)

MB

Reimbursement for Overdrafts/Excess Funds

1. The commercial bank will review the checks-paid letter of credit balance on a daily basis. The commercial bank will be bound by the agreement to ensure that proper action is taken by the bank to maintain the account balance as close to zero as administratively possible. Further, when overdrafts and excess balances occur, the commercial bank will also take appropriate action to correct these circumstances according to the procedures contained in the agreement and information included as part of the agreement.

   A. Expected or Recurring Overdrafts. If overdrafts frequently occur in an account or are expected to occur due to checks clearing after the established cut-off time, the Chicago Field Office may consider prefunding the account. Under the prefunding concept, the Chicago Site Office will require the commercial bank to estimate the average dollar value of checks presented each day which the commercial bank cannot capture in time to make a letter of draw down. The commercial bank will be allowed to adjust each draw down by the predetermined amount plus any negative account balance or minus any positive account balance from the previous day. Prefunding of an account must be approved in advance by the Controller's Office, DOE Headquarters.

   B. Excess Balances. An excess balance results when a commercial bank makes a letter of credit draw down for more money than is needed to cover charges (net of receipts) against the recipient organization's account. To determine what portion of an excess balance is refundable, the commercial bank shall subtract from the excess account balance the amount needed to fund the current day's charges--checks and wire transfers--before the Federal Reserve cut-off time for letter of credit draw downs. Immediately thereafter, the Chicago Field Office Finance and Accounting Division should be notified by telephone of the remaining balance and requested to provide disposition instructions. If necessary, the Chicago SiteOffice will amend the letter of credit to make the funds available for future disbursement.

2. Penalties on Excess Funds: If the calculated average daily balance for the month results in a positive account balance and the financial institution had no control over the positive balance, the financial institution will compensate DOE for the loss of the availability of funds by multiplying the average daily balance for the month by the Treasury Tax and Loan Funds Rate divided by 12. If the financial institution caused the positive account balance, it shall pay a penalty determined by multiplying the excess funds balance by the Federal Funds Rate adjusted for the proper period of time. Penalties will be remitted to the Chicago Site Office.

MB

ATTACHMENT J.4

APPENDIX D

CONTRACTOR'S COMMITMENTS

Applicable to the Operation of Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

8 Offeror's Involvement/Resources

(L.8, M.8)

FRA is a powerful, research-focused corporate partnership of URA and UChicago, which will focus its leadership, resources, and excellence in laboratory management on maintaining US preeminence in particle physics research and attracting the ILC to the US.

Reflecting our commitment to achieving world-class research and user-facility operations at FNAL, FRA, our corporate parents (URA and UChicago), and URA's member universities have developed 19 commitments totaling $12.1M over five years (***Figure 8–1***).

FRA 1.3 New Initiative

Donors by Commitment Type	Resource Name	Total 5-Year Commitment ($K)
Mission Support		
FRA	A. Director's Discretionary Fund	$2,500
URA	B. Strategic Collaborative Initiatives	$2,000
FRA	D. Key Personnel Salary Augmentation	$875
UChicago	F. Strategic Collaborative Initiatives	$1,250
University of Illinois	H. Strategic Collaborative Initiatives	$430
Northern Illinois University	I. Strategic Collaborative Initiatives	$150
Northern Illinois University	L. Joint Scintillator R&D Facility	$625
Northwestern University	N. Strategic Collaborative Initiatives	$950
Illinois Institute of Technology	P. Strategic Collaborative Initiatives	$500
Business Operations		
UChicago	E. Laboratory Collaboration Council / Management and Decision Support Dashboard Initiative	$500
EG&G/URS	S. Preliminary Assessment of Maintenance and Work Control Practices	$43
Education Commitments		
FRA	C. Scholarships for Children of FRA Employees	$1,000
UChicago	G. Executive Education for FNAL Staff and Scientists	$250
Northern Illinois University	J. Scholarships for Children of FRA Employees	$140
Northern Illinois University	K. Joint Education Programs	$150
Northwestern University	M. Scholarships for Children of FRA Employees	$125
Northwestern University	O. Executive Education for FNAL Staff and Scientists	$75
Illinois Institute of Technology	Q. Scholarships for Children of FRA Employees	$250
Illinois Institute of Technology	R. Education for Fermilab Staff and Scientists	$300
	Total Value of Commitments	**$12,113**

Figure 8–1. FRA Mission Support, Business Operations, and Educational Commitments to FNAL.

FRA's Plan for Resource Management and Integration at FNAL, and Other Pertinent Information

Figure 8–2 provides additional details regarding our 19 commitments, including our plan for managing and integrating committed resources and the FRA representatives responsible for each commitment. Following this figure, we provide resource commitment forms and signed commitment letters.

Resource Name / Donor	Responsibility	Management / Integration Process
Mission Support Commitments		
A. Director's Discretionary Fund (FRA)	❖ Laboratory Director	The Laboratory Director will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. He will integrate these resources at FNAL by choosing specific activities that will most effectively support the laboratory's mission and programs, delegating as necessary and appropriate to FNAL staff the responsibility to ensure that these committed resources are leveraged appropriately.
B, F, H, I, N, P. Strategic Collaborative Initiatives (UChicago, URA, U of I, NIU, NU, and IIT)	❖ Laboratory Director ❖ Laboratory Deputy Director ❖ FRA Science Committee ❖ FNAL Committee on Scientific Appointments ❖ University Presidents	This initiative will provide scientific effort and resources to support the DOE mission and programs at FNAL. It consists of joint appointments, adjunct appointments, leaves of absence at FNAL for university scientists, joint R&D projects, joint institutes, and support for public education and outreach. The Director will delegate to the Deputy Director who will be responsible for managing these resources to ensure that they are integrated into FNAL to the benefit of DOE's mission and programs. The FRA Science Committee will oversee the use of this resource to ensure that it is leveraged to the benefit of DOE's missions. For joint appointments, the Director determines the position need based on his workforce plan. A search committee composed of senior FNAL staff and university staff will identify qualified candidates. After consideration by the FNAL Committee on Scientific Appointments, the Director will propose candidates to the FRA Science Committee, which will forward its recommendation to the full Board. The universities, through their own appointments process, will approve the joint appointee, who becomes a member of the university faculty and a staff member at FNAL—with research or management at the laboratory being the focus of the appointee.
D. Key Personnel Salary Augmentation (FRA)	❖ FRA Board of Directors ❖ FRA Executive Committee ❖ FNAL HR Manager	The Chairman of the FRA Board of Directors will be responsible for managing this resource to ensure that it is leveraged to the benefit of DOE's scientific mission and to ensure that it meets program goals and supports the laboratory's overall mission in accordance with all applicable DOE directives and regulations. The FRA Executive Committee will monitor the use of these funds and make adjustments in the amounts from time to time based on changes in need or other circumstances. The Laboratory Director will delegate day-to-day responsibility for managing this program to the FNAL Human Resources Manager.
L. Joint Scintillator R&D Facility (NIU)	❖ Laboratory Director ❖ Associate Director for Research	The Laboratory Director will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. The Laboratory Director will delegate to the Associate Director for Research the integration of this resource for the benefit of the FNAL R&D programs.
Business Operations Commitments		
E. Laboratory Collaboration Council (UChicago)	❖ UChicago Vice President for Research ❖ Laboratory Director ❖ LCC ❖ Head of Office of Quality and Best Practices	The UChicago Vice President for Research and for ANL, who is a standing member of the FRA Board of Directors, will be responsible for managing this resource to ensure that it is leveraged to the benefit of DOE's scientific mission. The FNAL Director, who co-chairs the LCC on a rotating basis with the ANL Director, will receive and approve recommendations of the Council for integration into FNAL processes and operations. The Head of the Office of Quality and Best Practices will oversee the implementation of processes and programs responsive to the approved recommendations.

***Figure 8–2. Management of Commitments**. FRA has developed a process—and assigned responsibility—for the management of each commitment.*

Resource Name / Donor	Responsibility	Management / Integration Process
E. Management and Decision Support Dashboard Initiative (UChicago)	❖ UChicago Vice President for Research ❖ CFO ❖ Head of Office of Quality and Best Practices	The UChicago Vice President for Research and for ANL, who is a standing member of the FRA Board of Directors, will be responsible for managing this resource to ensure that it is leveraged to the benefit of DOE's scientific mission. The Director will be responsible for the integration into the laboratory; he will delegate the implementation of the dashboard initiative to the Chief Financial Officer. The Head of the Office of Quality and Best Practices will oversee the implementation to ensure that the needs of DOE and the laboratory are met.
S. Preliminary Assessment of Maintenance and Work Control Practices (EG&G/URS)	❖ EG&G President ❖ Local EG&G FNAL Support Manager	EG&G President Randall A. Wotring, a standing member of the FRA Board of Directors, will be responsible for managing this resource to ensure its benefit to DOE's scientific mission. The responsibility for conducting the assessment will be delegated to Jeff Cotton, the proposed local EG&G manager at FNAL. This process occurs during the transition period but it is not considered to be an activity of the transition plan. This assessment will be overseen and integrated by Bob Grant, the proposed Head of OQBP and Transition Manager.
Education Commitments		
C, J, M, Q. Scholarships (FRA, NIU, NU, and IIT)	❖ Laboratory Director ❖ Science Committee of FRA ❖ Board of Directors ❖ FNAL HR Manager	***Scholarships for Children of FRA Employees.*** The Laboratory Director will be responsible for managing these scholarship funds for the children of FRA employees to ensure that they are leveraged to the benefit of DOE's scientific mission by providing an incentive for recruiting and retaining top scientific, engineering, technical and business management talent. Scholarships will be awarded on a competitive basis to children of full-time FNAL employees pursuing college degrees. The Laboratory Director will delegate responsibility for managing this program to the FNAL Human Resources Manager. ***Scholarships at NIU, NU, and IIT.*** These scholarship awards will be made to students who have been accepted into degree-granting programs at NIU, NU or IIT. ***Scholarships at a College of the Student's Choice (FRA).*** The Science Committee of the FRA Board of Directors will oversee this program to ensure that it meets program goals and supports the laboratory's overall mission. The Science Committee will monitor the use of scholarship funds and make adjustments in the amount from time to time based on changes in need or other circumstances.
G. Executive Education for FNAL Staff and Scientists (UChicago)	❖ UChicago Vice President for Research ❖ Laboratory Director ❖ FNAL HR Manager	The UChicago Vice President for Research and for ANL, a standing member of the FRA Board of Directors, will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's mission. The Laboratory Director will be responsible for integration into FNAL and for choosing candidate staff or scientists to receive this education. Administration of the program will be delegated to the FNAL Human Resources Manager.
K. Joint Education Programs (NIU)	❖ President, Northern Illinois University ❖ Laboratory Director	The President of Northern Illinois University, a standing member of the FRA Board of Directors, will manage the graduate tuition waiver program and the joint Ph.D and Masters accelerator physics programs to ensure their benefit to the FNAL programs. The Laboratory Director will be responsible for integration with FNAL programs and for selection of staff and scientists to receive this education.
O. Executive Education for FNAL Staff and Scientists (NU)	❖ President, Northwestern University ❖ Laboratory Director	The President of Northwestern University, a standing member of the FRA Board of Directors, will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. The Laboratory Director will be responsible for integration with FNAL programs and for selection of staff and scientists to receive this education.

Figure 8–2. Management of Commitments. *FRA has developed a process—and assigned responsibility—for the management of each commitment.*

Resource Name / Donor	Responsibility	Management / Integration Process
R. Education for Fermilab Staff and Scientists (IIT)	❖ President, Illinois Institute of Technology ❖ Laboratory Director	The President of Illinois Institute of Technology, a standing member of the FRA Board of Directors, will be responsible for managing these resources to ensure that they are leveraged to the benefit of DOE's scientific mission. The Laboratory Director will be responsible for integration with FNAL programs and for selection of staff and scientists to receive this education.

Figure 8–2. Management of Commitments. *FRA has developed a process—and assigned responsibility—for the management of each commitment.*

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.A Director's Discretionary Fund. FRA, LLC commits to provide approximately $500K per year to establish a Director's Discretionary Fund to leverage specific programs, initiatives, and activities at FNAL that enhance the laboratory's scientific and technology programs, enhance the user experience and contribute to employee retention. Examples of specific programs which these funds will support include: employee morale activities, awards and gifts, support for meetings and conferences, support for the FNAL User's Center, and program advocacy.	
Resource Donor	**Type of Resource**
Fermi Research Alliance, LLC	Direct Funding
Location of Resource	**Estimated Total Value**
Fermi Research Alliance, LLC 355 1st Street, 2nd Floor, Batavia, IL 60510	$2,500,000 over five years
Date Resource will be Provided	
At start of the contract in annual increments of approximately $500K	
Resource Benefits to FNAL	
❖ Conferences and meetings which develop or report results of programs in support of DOE's mission to maintain U.S. pre-eminence in scientific research ❖ Events, awards and gifts which contribute to FNAL's employee retention programs by enhancing employee morale ❖ Support for the FNAL User's Center to enhance the user on-site experience while they are at FNAL conducting research in support of DOE's programs	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.B URA Universities Strategic Collaborative Initiatives. URA, Inc., commits to provide approximately $400K per year to 1) seed R&D projects by providing support for URA university faculty and staff in joint projects with Fermilab, 2) fund sabbatical leaves at Fermilab and extended visits of URA university personnel to Fermilab, and 3) fund activities of URA universities' faculty and staff aimed at public education and outreach in support of DOE programs.	
Resource Donor	**Type of Resource**
Universities Research Association, Inc.	Direct Funding
Location of Resource	**Estimated Total Value**
Universities Research Association, Inc., 1111 19th St., N.W., Suite 400, Washington, D.C. 20036	$2,000,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $400K	
Resource Benefits to FNAL	
❖ Innovative R&D projects to develop future science programs at Fermilab in support of DOE's mission to maintain preeminence in high energy physics in the U.S. ❖ Personnel who will contribute to the DOE Science and R&D programs at Fermilab at no charge to the Government ❖ Education and outreach to the public to develop support for DOE programs as well as to contribute to encouraging young people to pursue careers in science and technology and thereby developing the next generation of scientists and engineers	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.C FRA University Scholarships for Children of FRA Employees. Fermi Research Alliance, LLC, commits to provide $200K per year to fund scholarships on a competitive basis to full-time FNAL employees' children who are pursuing undergraduate college degrees. The scholarship award of up to $4,100 per year will be continued for a maximum of four years providing the student remains in a four-year program with satisfactory academic progress.	
Resource Donor	**Type of Resource**
Fermi Research Alliance, LLC	Direct Funding
Location of Resource	**Estimated Total Value**
Fermi Research Alliance, LLC 355 1st Street, 2nd Floor Batavia, IL 60510	$1,000,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $200K	
Resource Benefits to FNAL	
❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.D Key Personnel Salary Augmentation. Fermi Research Alliance, LLC commits to provide approximately $175K per year to augment DOE-approved salary levels to compete successfully for selected FRA key personnel.	
Resource Donor	**Type of Resource**
Fermi Research Alliance, LLC	Direct Funding
Location of Resource	**Estimated Total Value**
FRA, LLC 355 1st Street, 2nd Floor Batavia, IL 60510	$875,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $175K	
Resource Benefits to FNAL	
❖ This resource commitment provides laboratory management funds to compete more aggressively and successfully for recruitment and retention of the best scientific and managerial talent, especially for those individuals in great demand in industry and in other parts of the research community.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.E Laboratory Collaboration Council/Management and Decision Support Dashboard Initiative. UChicago commits approximately $100K per year to support activities associated with the Laboratory Collaboration Council initiative and the Management and Decision Support Dashboard initiative.	
Resource Donor	**Type of Resource**
The University of Chicago	Direct Funding
Location of Resource	**Estimated Total Value**
The University of Chicago 5720 S. Woodlawn Chicago, IL 60637	$500,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $100K	
Resource Benefits to FNAL	
❖ These funds will provide Fermilab's Office of Quality Assurance and Best Practices with additional means and expertise to expedite the implementation of the Dashboard which will provide key DOE and FNAL decision makers and managers near-real time data on laboratory performance to align strategies with operational objectives, actively monitor day-to-day activities, and collaborate more effectively across the enterprise to drive efficiencies towards producing the maximum scientific output from each taxpayer dollar. A more rapid implementation and earlier utilization of benefits from these efforts will provide more operational efficiencies, leading to cost savings for FNAL and DOE. ❖ Additionally, FNAL staff will be able to access subject matter experts and lessons learned at Argonne National Laboratory via the Laboratory Collaboration Council. ❖ Together these commitments will strengthen and streamline the adoption of best practices at FNAL and assure the highest quality of performance for DOE.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.F UChicago Strategic Collaborative Initiatives. UChicago commits approximately $250K per year for strategic joint appointments, collaborative research projects and joint institutes.	
Resource Donor	**Type of Resource**
The University of Chicago	In-kind contribution
Location of Resource	**Estimated Total Value**
The University of Chicago 5720 S. Woodlawn Chicago, IL 60637	$1,250,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $250K	
Resource Benefits to FNAL	
❖ These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Prime among these is a joint UChicago–FNAL appointment to head FNAL's Center for Particle Astrophysics. ❖ Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, astrophysics, and accelerator research, creating new ventures and discoveries that push the frontiers of science.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.G UChicago Executive Education for Fermilab Staff and Scientists. The University of Chicago commits approximately $50K per year or $250K over the five-year term of the base contract to working with Fermilab and DOE to create a non-degree executive education program for FNAL professional and scientific staff. This program will build upon and be coordinated with the proposed commitment to ANL to establish an executive program at ANL through the University's Graduate School of Business.	
Resource Donor	**Type of Resource**
The University of Chicago	In-kind Contribution
Location of Resource	**Estimated Total Value**
The University of Chicago 5720 S. Woodlawn Chicago, IL 60637	$250,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $50K	
Resource Benefits to FNAL	
❖ The benefit to DOE is an increased management capability. Administrative efficiency will lead to cost savings that can be applied to scientific programs. This will allow more mission-critical work to be accomplished.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government

Description of Resource Commitment

8.H University of Illinois Strategic Collaborative Initiatives. The University of Illinois branches at Urbana–Champaign (UIUC) and Chicago (UIC) commit to provide resources for collaborative initiatives in programs that support DOE's mission at Fermilab. UIUC will provide support for one joint appointment at a senior level. The cost of the position would be shared equally with FNAL but the benefit to the laboratory would be ¾ FTE per year. The appointment will be in place for three of the five years of the initial contract and will have a value to the laboratory of approximately $180K over the five-year contract period. In addition, UIUC commits resources to support one research assistant per year in support of emerging collaborative research projects between UIUC and FNAL scientific staff. The value of this resource is approximately $50K per year or $250K over the initial five-year contract period. UIC will provide adjunct faculty positions to help build a stronger connection between FNAL and UIC. UIC also commits to making available to FNAL R&D programs their analytical equipment at the UIC Research Resources Center at a discounted rate. UIC will support two joint appointments when the decision is made to site the ILC in Illinois.

Resource Donor	Type of Resource
The University of Illinois	In-kind contributions
Location of Resource	**Estimated Total Value**
The University of Illinois 364 Henry Administration Building 506 South Wright Street Urbana, IL 61801-3689	$430,000 over five years

Date Resource will be Provided

The joint appointment will commence during the initial five-year period and not later than 24 months after the start of the contract so that three years are supported. The research assistant support will become available at the start of the contract.

Resource Benefits to FNAL

- These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent through joint and adjunct appointments. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics and accelerator research, creating new ventures and discoveries that push the frontiers of science.
- These resources support incentives that assist FNAL management to attract and retain scientists who are the leaders in particle physics research by offering an academic appointment at a prestigious university combined with a staff position at a national laboratory.
- Technical staff and equipment provided at reduced cost provide resources for support of R&D programs at the laboratory at no or reduced cost to the Government.

Resource Liabilities to FNAL

None anticipated

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.I Northern Illinois University Strategic Collaborative Initiatives. Northern Illinois University commits the resources to support one FNAL–NIU joint appointment for three years in the field of Accelerator Physics. Two thirds of the work performed will be in support of DOE programs at FNAL while the laboratory will fund only one third of the salary. The value of this commitment to the DOE mission is approximately $50K per year, a total of $150K during the initial five-year contract period.	
Resource Donor	**Type of Resource**
Northern Illinois University	In-kind contribution
Location of Resource	**Estimated Total Value**
Northern Illinois University Dekalb, Illinois 60115	$150,000 over five years
Date Resource will be Provided	
The resource will be provided during the initial five-year contract period and not later than 24 months after start of the contract so that three years of a joint appointment are supported.	
Resource Benefits to FNAL	
❖ These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the field of accelerator science, helping to create new ventures and discoveries that push the frontiers of science.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.J Northern Illinois University Scholarship Program For Children of FRA Employees. Northern Illinois University commits the resources to grant two full scholarships per year to the children of FRA employees. The value at $14K per year per student is $28K per year or $140K over the initial five-year contract period.	
Resource Donor	**Type of Resource**
Northern Illinois University	In-kind contribution
Location of Resource	**Estimated Total Value**
Northern Illinois University Dekalb, Illinois 60115	$140,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of $28K	
Resource Benefits to FNAL	
❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.K Northern Illinois University-FNAL Joint Education Programs. Northern Illinois University commits the resources to develop a joint Ph.D. program in accelerator physics and a joint Masters degree program in RF engineering. The value of these programs is fully dependent on how many students are enrolled in the programs during the term of the contract. During the research studies phase of the Ph.D. program, an estimate of the contribution would be approximately one half FTE per student. Nevertheless, we do not assign a monetary value to this very valuable program because of the inherent variability of its value. This is a long-term investment in strengthening NIU ties to FNAL and contributing to the future of accelerator technology. NIU will also commit to two full tuition waivers for graduate students each year, who are working on FNAL programs. This has a value of $30K per year or $150K over the initial five-year term of the contract.	
Resource Donor	**Type of Resource**
Northern Illinois University	In-kind contribution
Location of Resource	**Estimated Total Value**
Northern Illinois University Dekalb, Illinois 60115	$150,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $30K	
Resource Benefits to FNAL	
❖ There is a great need for and shortage of accelerator physicists to support the needs of the Office of Science missions related to accelerator science. Educating, recruiting, and hiring talented accelerator scientists are priorities for the DOE missions at FNAL and elsewhere in the U.S. The development of a joint Ph.D. program in accelerator science serves to train the next generation of accelerator scientists and at the same time provides the research efforts of these students working on R&D problems in support of FNAL programs. RF engineering is a necessary core competency related to the key technology of superconducting RF for the ILC. Training the next generation of engineers and recruiting them to work in support of the ILC is a high priority. The graduate tuition waiver program provides an incentive for graduate students to work in DOE mission-related research at FNAL and contributes to attracting top young scientific talent to FNAL and DOE programs.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.L Northern Illinois University-FNAL Joint Scintillator R&D Facility. Northern Illinois University will maintain and locate a plastic co-extruder at FNAL and support its operation with one half FTE of technician effort. The estimated value of this commitment of equipment and personnel is $125K per year or $625K over the five years of the initial contract.	
Resource Donor	**Type of Resource**
Northern Illinois University	In-kind contribution
Location of Resource	**Estimated Total Value**
Northern Illinois University Dekalb, Illinois 60115	$625,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $125K	
Resource Benefits to FNAL	
❖ Scintillating fiber technology is one of the enabling technologies of high energy physics particle detectors used extensively, for example, in the DZero collider detector and future detectors such as MINERvA. FNAL maintains a core competence in the use and development of this technology for particle physics experiments and other applications. The location at FNAL and use of the NIU co-extruder in DOE mission-related R&D at FNAL will reduce the cost of these R&D programs to the Government and maximize the output of these programs per dollar invested.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.M Northwestern University Scholarships for Children of FRA Employees. Northwestern University commits the resources to grant scholarships to provide tuition support to the children of FRA employees for a total of $25K per year.	
Resource Donor	**Type of Resource**
Northwestern University	In-kind contribution
Location of Resource	**Estimated Total Value**
Northwestern University 633 Clark Street Evanston, IL 60208	$125,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of $25K	
Resource Benefits to FNAL	
❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.N Northwestern University Strategic Collaborative Initiatives. Northwestern University commits to provide support for strategic joint appointments and collaborative research projects with FNAL scientists. Two joint Northwestern-FNAL junior or senior positions will be supported. The support for these positions will be shared equally between the two institutions but ¾ of the effort will be devoted to DOE missions at FNAL. The contribution from the university, one quarter of an FTE per joint appointment for at least three years, has an estimated value of $350K over the five years of the initial contract period. In addition, start-up funds to support the research programs of these scientists at FNAL will be provided with a value of at least $400K. The University will also grant two full one-year leaves of absence for faculty members to perform dedicated work in support of DOE's missions at FNAL. The University support for these scientists would be $200K over the initial five-year term of the contract.	
Resource Donor	**Type of Resource**
Northwestern University	In-kind contribution
Location of Resource	**Estimated Total Value**
Northwestern University 633 Clark Street Evanston, IL 60208	$950,000 over five years
Date Resource will be Provided	
The joint appointments will commence during the initial five-year contract period and not later than 24 months after the start of the contract so that three years will be supported. The leaves of absence will be granted so that they are completed during the initial five-year contract period.	
Resource Benefits to FNAL	
❖ Since Fermilab would otherwise have a need to hire equivalent staff to carry out DOE programs at FNAL, this program reduces the cost to the Government of these programs. These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, astrophysics and accelerator research, creating new ventures and discoveries that push the frontiers of science.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.O Northwestern University Executive Education for Fermilab Staff and Scientists. Northwestern University will grant partial tuition wavers (30%) for executive training programs offered by the Kellogg School of Business for up to six FNAL managers per year. This represents a commitment of $15K per year or $75K over the five-year period of the initial contract.	
Resource Donor	**Type of Resource**
Northwestern University	In-kind Contribution
Location of Resource	**Estimated Total Value**
Northwestern University 633 Clark Street Evanston, IL 60208	$75,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $15K	
Resource Benefits to FNAL	
❖ The benefit to DOE is an increased management capability. Continuous improvement in management will be key to achieving efficiencies throughout the organization. Administrative efficiency will lead to cost savings that can be applied to scientific programs allowing more mission-critical work to be accomplished.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.P Illinois Institute of Technology Strategic Collaborative Initiatives. IIT commits to supporting three joint IIT-FNAL appointments, one senior, and two junior faculty appointments. On average these appointments will be filled for three years out of the five-year initial term of the contract. The support for these positions will be shared equally between the two institutions but three quarters of the effort will be devoted to DOE missions at FNAL. This contribution from the University has an estimated value of $350K over the five years of the initial contract period. In addition, the University will grant one full one-year leave of absence for a faculty member to perform dedicated work in support of DOE's missions at FNAL. FNAL would provide one third of the support and Northwestern would provide two thirds of the support. The estimated value of two thirds of an FTE contribution to FNAL programs is approximately $150K over the five-year initial term of the contract.	
Resource Donor	**Type of Resource**
Illinois Institute of Technology	In-kind contribution
Location of Resource	**Estimated Total Value**
Illinois Institute of Technology 3300 South Federal Street Chicago, IL 60616-3793	$500,000 over five years
Date Resource will be Provided	
The joint appointments will commence during the initial five-year contract period and not later than 24 months after the start of the contract so that three years will be supported. The leave of absence will be granted so that it is completed during the initial five-year contract period.	
Resource Benefits to FNAL	
❖ Since Fermilab would otherwise have a need to hire equivalent staff to carry out DOE programs at FNAL, this program reduces the cost to the Government of these programs. These funds will provide the Laboratory Director with flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, astrophysics and accelerator research, creating new ventures and discoveries that push the frontiers of science.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.Q Illinois Institute of Technology Scholarships for Children of FRA Employees. Illinois Institute of Technology commits the resources to grant five scholarships to provide 50% tuition support to the children of FRA employees. The value at $10K per year per student is approximately $50K per year or $250K over the initial five-year contract period.	
Resource Donor	**Type of Resource**
Illinois Institute of Technology	In-kind contribution
Location of Resource	**Estimated Total Value**
Illinois Institute of Technology 3300 South Federal Street Chicago, IL 60616-3793	$250,000 over five years
Date Resource will be Provided	
At start of contract in annual increments of approximately $50K	
Resource Benefits to FNAL	
❖ This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent, which is commensurate with benefits of university faculty—FNAL's main competitor for top talent	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
8.R Illinois Institute of Technology Executive Education for Fermilab Staff and Scientists. Illinois Institute of Technology commits to provide one FTE-year of faculty effort, with a value of approximately $150K over the five-year period of the initial contract, to design specific courses for FNAL staff in the diverse areas where IIT has specific competencies. In addition, IIT commits to supporting management and technical training courses for FNAL professional and scientific staff with tuition discounts up $30K per year or $150K over the five-year period of the initial contract.	
Resource Donor	**Type of Resource**
Illinois Institute of Technology	In-kind Contribution
Location of Resource	**Estimated Total Value**
Illinois Institute of Technology 3300 South Federal Street Chicago, IL 60616-3793	$300,000 over five years
Date Resource will be Provided	
At start of contract in approximately equal annual increments	
Resource Benefits to FNAL	
❖ The benefit to DOE is an increased management capability deriving from expanded skills of FNAL staff. Administrative efficiency will lead to cost savings that can be applied to scientific programs. This will allow more mission-critical work to be accomplished.	
Resource Liabilities to FNAL	
None anticipated	

Resource Commitments to FNAL at No Cost to the Government	
Description of Resource Commitment	
S. Preliminary Assessment of Maintenance and Work Control Practices. EG&G/URS commits four subject matter experts to perform a preliminary assessment of maintenance and work control practices. Deliverables include a brief report and presentation to assist OQBP in developing plans and preparing for implementation of best practices. EG&G will suggest a path for FNAL to implement an industry best-practice that has evolved in this arena—adoption of a reliability-centered maintenance (RCM) program with an accompanying wireless (paperless) network to interface with the existing Computerized Maintenance Management System (CMMS) application. Implementation of this at EG&G operated facilities, such as NASA's Marshall Space Flight Center (MSFC), has netted a cost reduction in the areas of required replacement parts and elimination of over 95,000 paper work orders per year.	
Resource Donor	**Type of Resource**
EG&G/URS	Personnel
Location of Resource	**Estimated Total Value**
EG&G 200 Orchard Ridge Drive, Suite 100 Gaithersburg, MD 20878	$43,000
Date Resource will be Provided	
Following announcement of award, before beginning of period of performance	
Resource Benefits to FNAL	
❖ Proper implementation of RCM combines the best of the four (4) maintenance methods used today: reactive (corrective), time-based (preventative), condition-based, and proactive (predictive). FNAL should be able to reap short-term benefits from reducing reactive and time-based maintenance and longer-term benefits from proper execution of condition-based and proactive maintenance. Managed properly, the benefits derived from the short-term benefits should offset the cost of implementing the changes required to fully implement RCM. ❖ Over the life of the contract FNAL should be able to reduce costs associated with maintenance and work control and increase reliability of utility systems that provide required services to scientific endeavors.	
Resource Liabilities to FNAL	
None anticipated	

Universities Research Association, Inc.

...rick M. Bernthal
President

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August 14, 2006

Ms. Tonja Stokes
Secretary, Source Evaluation Board for Selection of a Contractor for FNAL
U.S. Department of Energy
Chicago Office
9800 South Cass Ave.
Argonne, Illinois 60439

Re: Commitment of Resources to Fermi National Accelerator Laboratory (FNAL) at No Cost to the Government

Dear Ms. Stokes:

Universities Research Association, Inc. (URA) is pleased to join with the University of Chicago in the formation of Fermi Research Alliance, LLC (FRA) in proposing to manage and operate Fermilab for the Department of Energy. URA has managed Fermilab for the Department since the inception of the laboratory, and we look forward to continuing to work with the Department to achieve its mission at Fermilab. In addition to our proposed role in FRA, URA makes the following specific commitment in support of Fermilab's future, as follows:

> Universities Research Association agrees to provide $400,000 per year or $2,000,000 over five years to: 1) seed R&D projects by providing support for URA university faculty and staff in joint projects with Fermilab; 2) fund sabbatical leaves at Fermilab and extended visits of URA university personnel to Fermilab; and 3) fund activities of URA university faculty and staff dedicated to public education and outreach in support of DOE programs.

URA is providing this new commitment of resources to Fermilab in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,

Frederick M. Bernthal
President

1111 19th Street NW, Suite 400, Washington, DC 20036-3627
(202) 293-1382 FAX: (202) 293-5012
WWW.URA-HQ.ORG

THE UNIVERSITY OF CHICAGO

OFFICE of the VICE PRESIDENT for RESEARCH AND FOR ARGONNE NATIONAL LABORATORY

5801 SOUTH ELLIS AVENUE, SUITE 502
CHICAGO, ILLINOIS 60637

THOMAS F. ROSENBAUM
John T. Wilson Distinguished Service Professor of Physics
Vice President for Research and for Argonne National Laboratory

Tonja Stokes
Executive Secretary
Source Evaluation Board for Selection of a Contractor for FNAL
U.S. Department of Energy
Chicago Office
9800 South Cass Ave.
Argonne, Illinois 60439

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost to the Government

Dear Ms. Stokes:

The University of Chicago is pleased to join with Universities Research Association in the formation of Fermi Research Alliance, LLC (FRA) in proposing to manage and operate Fermilab for the Department of Energy. The University has long been a collaborator in science programs at the laboratory and we look forward to this new role in working with the Department to achieve its mission at Fermilab. In addition to our proposed role in FRA we commit to support Fermilab as follows:

(1) The University of Chicago commits approximately $250K per year, or $1,250,000 over the term of the five year base contract for strategic joint appointments, collaborative research projects and joint institutes. These funds will provide the laboratory director with additional flexibility to develop or expedite progress in promising programmatic areas and thus enable the laboratory to achieve certain DOE missions in a more expeditious manner. Prime among these is a joint UChicago – FNAL appointment to head FNAL's Center for Particle Astrophysics. Working with the University, FNAL will be better positioned to attract world-class talent. These funds will bolster FNAL's leadership position in the fields of fundamental particle physics, and accelerator research, creating new ventures and discoveries that push the frontiers of science.

(2) The University of Chicago commits approximately $100K per year, or $500,000 over the five year term of the base contract to support activities associated with the Laboratory Collaboration Council and the Management and Decision Support Dashboard (MDSD) initiative. These funds will provide Fermilab's Office of Quality Assurance and Best Practices with additional means and expertise to expedite the implementation of the MDSD which will provide key DOE and FNAL decision makers and managers real-time data on laboratory performance to align strategies with operational objectives, actively monitor day-to-day- activities, and collaborate more effectively across the enterprise to drive efficiencies towards producing the maximum scientific output from each taxpayer dollar. A more rapid implementation and earlier utilization of benefits from these efforts will provide more operational efficiencies, leading to cost savings for FNAL and DOE. Additionally, FNAL staff will be able to access subject matter experts and lessons learned at Argonne National Laboratory via the Laboratory Coordinating Council. Together these commitments will strengthen and streamline the adoption of best practices at FNAL and assure the highest quality performance.

(3) The University of Chicago commits to working with Fermilab and the Department of Energy to create a non-degree executive education program for Fermilab professional and scientific staff. This program will build upon and be coordinated with the proposed commitment to establish an executive education program at Argonne through the University's Graduate School of Business. This commitment is valued at approximately $50,000 per year, or $250,000 over the five year term of the base contract. This is expected to yield an increased management capability

TELEPHONE: 773-702-1383 · FAX: 773-702-9595 · E-MAIL: t-rosenbaum@uchicago.edu

and administrative efficiency and thus lead to cost savings that can be applied to scientific programs. This, in turn, will allow more mission critical work to be accomplished.

The cost to provide this corporate commitment is, for the purposes of this contract, acknowledged to be unallowable costs, with the further understanding that such commitment would only be undertaken so long as the contract remains in effect. Such commitment is further acknowledged to be separate from and unrelated to the fee. The University of Chicago is pleased to provide this commitment of resources to FNAL in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,

Thomas F. Rosenbaum

Thomas F. Rosenbaum
Vice President for Research and for Argonne National Laboratory
University of Chicago

UNIVERSITY OF ILLINOIS
Chicago • Springfield • Urbana-Champaign

Office of the President
364 Henry Administration Building
506 South Wright Street
Urbana, IL 61801-3689

B. Joseph White
President

PRESIDENT'S OFFICE
AUG 11 2006

August 8, 2006

Dr. Robert J. Zimmer
Chairman of the Fermi Research Alliance and
President, The University of Chicago
Administration Building
5801 South Ellis Avenue, 502
Chicago, Illinois 60637

Dear Dr. Zimmer:

I am writing to affirm the full support of the University of Illinois to the University of Chicago, in partnership with the Universities Research Association, Inc., in creating an exciting future for Fermilab as a unique component of our nation's scientific research infrastructure. We are pleased to join you in providing scientific and administrative leadership and look forward to participating as a full member in the governance structure of Fermilab and as a major contributor to the advancement of Fermilab's science mission.

The University of Illinois campuses at Chicago and Urbana-Champaign, both of which have long and accomplished histories of scientific involvement at Fermilab, will provide separate, campus specific letters committing their support. The purpose of my letter is to complement and endorse our campuses commitments.

To assure an effective and integrated partnership between the University of Illinois and Fermilab, the Offices of the President and the Vice President for Technology and Economic Development are committed to providing high level leadership through service in the governance structure for Fermilab. In addition, the Vice Chancellors for Research at the University of Illinois at Chicago and at the University of Illinois at Urbana-Champaign agree to serve and give leadership to science policy and strategy at Fermilab.

The University of Illinois is enthusiastic about potential collaborations with Fermilab to encourage more young people to pursue careers in science and technology. Developing tomorrow's science and technology leaders is absolutely essential if we are to compete in the global marketplace.

Urbana • (217) 333-3070 • Fax (217) 333-3072 • E-Mail: bjwhite@uillinois.edu
Chicago • 1737 West Polk Street • Chicago, Illinois 60612-7228 • (312) 413-9097

Advancing the economic wellbeing of Illinois, the Midwest and the nation is an important responsibility of the University of Illinois. We share the mission to broaden and strengthen economic growth and development through investments in discovery research and the accelerated transfer, development and commercialization for the public benefit of innovations and new technologies resulting from this investment. Therefore, the University of Illinois pledges its unwavering support to design strategies and develop successful programs to foster rapid technology deployment to market thus achieving maximum local, regional and national economic impact.

I look forward to partnering to guide the future of Fermilab, an important national resource.

Sincerely,

B. Joseph White

cc: Frederick Bernthal-President, Universities Research Association, Inc.
David L. Chicoine-Vice President, University of Illinois
Richard H. Herman-Chancellor, University of Illinois at Urbana-Champaign
Sylvia Manning-Chancellor, University of Illinois at Chicago
Piermaria J. Oddone- Director, Fermi National Accelerator Laboratory

UNIVERSITY OF ILLINOIS
AT URBANA-CHAMPAIGN

Office of the Vice Chancellor for Research

Fourth Floor Swanlund Building
601 East John Street
Champaign, IL 61820-5711

August 9, 2006

Dr. Piermaria Oddone
URA Batavia Proposal Center
355 First Street
Batavia, IL 60510

Dear Dr. Oddone:

The University of Illinois at Urbana-Champaign (UIUC) strongly supports the proposal of the Fermi Research Alliance for the management and operation of Fermilab. UIUC has a strong interest in the future of research at Fermilab, and is committed to strengthening the ties between the research and educational programs of our two organizations.

Over the five year period of the contract, UIUC is willing to provide support for one research assistant each year to participate in emerging collaborative research projects between UIUC and Fermilab staff, provided that the projects are selected through a competitive process and that the UIUC funding for the project is matched by Fermilab. As you may know, the College of Engineering has already committed $100,000 to the Dark Energy collaboration. In addition, UIUC faculty members collaborating with Fermilab staff can apply to existing, competitive seed-funding programs managed by Office of the Vice Chancellor for Research. These programs include the Campus Research Board and the Critical Initiatives in Research and Scholarship. (http://www.research.uiuc.edu/crb/ http://www.research.uiuc.edu/cri/)

UIUC is eager to explore opportunities to extend our educational offerings through cooperation with Fermilab, and we expect that it will be possible to fund these efforts by means of joint grant proposals. Programs of particular interest to the campus include a joint graduate degree and an undergraduate specialization in accelerator physics, short course development and the expansion of existing outreach programs at both Fermilab and UIUC.

UIUC is willing to conduct a joint search with Fermilab for a senior faculty member under our Faculty Excellence program. We see such a position as a powerful tool for building strong collaborative research programs between our institutions.

UIUC is committed to allowing our faculty members to perform research at Fermilab. In addition to the ongoing research programs involving our faculty, faculty release time could be funded by Fermilab to allow our faculty to spend additional time on projects that are mutually agreed upon by UIUC and the Director of Fermilab. This would likely be in the context of faculty sabbaticals.

Finally, UIUC plans to work closely with Fermilab and other institutions to build infrastructure and research programs to support the development of the International Linear Collider at Fermilab.

UIUC is fully supportive of broadening and strengthening our relationship with Fermilab. We look forward to actively developing community and state support for the International Linear Collider and other Fermilab activities. Expanding our institutional interactions with Fermilab is critical to maintaining our leadership in High Energy Physics. As our interactions with Fermilab grow, we hope to enlarge participation in education and research to other disciplines at UIUC.

We look forward to working with you and the other members of the Fermi Research Alliance. If you have questions or need additional information, please contact Howard Guenther, hguenthe@uiuc.edu, or Melanie Loots, mloots@uiuc.edu, in my office. Either can be reached at 217-333-0034.

Sincerely,

Charles F. Zukoski
Vice Chancellor for Research

c: Fred Bernthal
Michael Turner

UNIVERSITY OF ILLINOIS
AT CHICAGO

Office of the Dean (MC 228)
College of Liberal Arts and Sciences
601 South Morgan Street
Chicago, Illinois 60607-7104

PRESIDENT'S OFFICE
AUG 0 8 2006

August 2, 2006

Dr. Robert Zimmer, Chairman, Fermi Research Alliance
President University of Chicago
5801 S. Ellis Ave, Suite 502
Chicago, IL 60637

Dear Dr. Zimmer:

The University of Illinois at Chicago (UIC) is pleased to join the University of Chicago and the Universities Research Association (URA) in support of the Fermilab Research Alliance proposal to manage and operate Fermilab. The UIC Department of Physics has a long history of experimentation at Fermilab, and we intend to continue that relationship in the future. In support of the proposal to the Department of Energy, UIC makes the following commitments to Fermilab.

UIC will join URA and through its financial contributions to URA will help build joint programs with Fermilab ($35K). In addition UIC will seek out Fermilab scientists for adjunct faculty positions to help build a stronger connection between our two institutions. In the long term we commit to at least two joint faculty appointments when the decision is made to site the International Linear Collider in Illinois. We also commit to making our specialized facilities available to Fermilab scientists, especially the powerful analytical equipment at the Research Resources Center, at the same discounted rate as other local research universities.

We look forward to working with you and your colleagues in the future.

Sincerely,

R. Michael Tanner
Provost

Christopher M. Comer, Dean
College of Liberal Arts and Sciences

Eric A. Gislason
Vice Chancellor for Research

cc: Piermaria Oddone, Director FNAL
Fred Bernthal, President URA

UIC

Phone (312) 413-2500 • Fax (312) 413-2511

NORTHERN ILLINOIS
UNIVERSITY

Office of the President
Altgeld Hall 300
DeKalb, Illinois 60115-2854
(815) 753-1271
FAX (815) 753-8686

PRESIDENT'S OFFICE
AUG 15 2006

August 9, 2006

Dr. Robert Zimmer
Chairman, Fermi Research Alliance
President, University of Chicago
5801 S. Ellis Ave.
Suite 502
Chicago, IL 60637

Re: Commitment of resources to Fermi National Accelerator Laboratory at no cost to the government

Dear Dr. Zimmer:

In connection with the Fermi Research Alliance proposal to manage and operate Fermilab, Northern Illinois University is pleased to make the following commitments.

Northern Illinois University commits resources to support one FNAL – NIU joint appointment for three years in the field of Accelerator Physics. NIU will cover two thirds of the salary for an annual contribution of approximately $100K/year and a total of $300K over the initial term of the contract.

Northern Illinois University commits the resources to grant up to two full undergraduate tuition scholarships to the children of FRA employees per year. This is valued at $28K/ year or $140K over the initial term of the contract. These scholarships would be given on a competitive basis, with qualifications similar to that of the most demanding scholarship programs at NIU. These scholarships help in the recruitment of top talent to Fermilab by adding to the excellent educational opportunities for the children of Fermilab employees.

Northern Illinois University commits to two full tuition waivers for graduate students per year who are working on Fermilab programs. This has a value of $30K/year or $150K for the first five year term of the contract.

Northern Illinois University commits the resources to develop a joint Ph.D. program in accelerator physics and a joint Masters degree program in RF engineering. The development of a joint Ph.D. program in accelerator science serves to train the next generation of accelerator scientists and at the same time provides the research efforts of students working on R&D problems in support of FNAL

programs. Radiofrequency engineering is a necessary core competency related to the key technology of superconducting RF for the ILC. Training the next generation of engineers and recruiting them to work in support of the ILC is a high priority. The value of these programs is fully dependent on how many students are enrolled in the programs during the term of the contract. This is a long term investment in strengthening our ties to Fermilab and contributing to the future of accelerator technology.

Northern Illinois University will maintain and locate a plastic co-extruder at FNAL and support its operation with one half FTE of technician effort. The estimated value of this commitment of equipment and personnel is $125K per year or $625K over the five years of the initial contract. Scintillator technology is one of the enabling technologies of high energy physics particle detectors used extensively, for example, in the DZero collider detector and in future detectors like Minerva. FNAL maintains a core competency in the use and development of this technology for particle physics experiments and other applications. The location at FNAL and use of the NIU co-extruder in DOE mission related R&D at FNAL will reduce the cost of these R&D programs to the government.

Northern Illinois University is pleased to provide this commitment of resources to FNAL in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,

John G. Peters

John G. Peters
President

cc: Piermaria Oddone, Director Fermilab
Fred Bernthal, President URA

Office of the President Northwestern University
Rebecca Crown Center
633 Clark Street
Evanston, Illinois 60208-1100

nu-president@northwestern.edu
Phone 847-491-7456
Fax 847-467-3104

NORTHWESTERN
UNIVERSITY

August 7, 2006

Dr. Robert Zimmer, Chairman, Fermi Research Alliance
President University of Chicago
5801 S. Ellis Ave.
Suite 502
Chicago, IL 60637

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost to the Government

Dear Dr. Zimmer:

Northwestern University supports the University of Chicago and the Universities Research Association in their proposal to manage and operate Fermilab through the Fermi Research Alliance (FRA). We have long standing collaborations with Fermilab and we want to enhance this relationship in the future to our mutual benefit. We commit to support Fermilab in the future as follows.

Northwestern University commits the resources to grant tuition scholarships to the children of employees of FRA who are admitted as undergraduates for a total of $25k/year. This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent.

Northwestern University commits to two joint Northwestern – FNAL positions, senior or junior faculty appointments. The university investment in these positions consists of the start-up packages adding to at least $400K plus a 50% salary commitment for three years per faculty adding to at least $700K. The support for these positions will be shared between the two institutions but the effort will be concentrated on the Fermilab program.

The University will grant a total of two academic years of leaves of absence for faculty members to perform dedicated work in support of DOE's missions at FNAL. FNAL would provide one-third of the support and Northwestern would provide two-thirds of the support. The University support would add to $200K over the initial term of the contract. Since Fermilab would otherwise have a need to hire an equivalent effort to carry out DOE programs at FNAL, this program reduces the cost to the government of these programs.

The University will grant partial tuition waivers (30%) for executive training programs offered by the Kellogg School of Business for up to 6 Fermilab managers per year. This represents a commitment of approximately $15K/year or $75K over the life of the

contract. Continuous improvement in management will be key to achieving efficiencies throughout the organization.

Northwestern University is pleased to provide this commitment of resources to FNAL in support of DOE's mission to maintain U.S. preeminence in scientific research.

Sincerely,

Henry S. Bienen
President
Northwestern University

cc: Piermaria Oddone, Director Fermilab
Fred Bernthal, President URA

ILLINOIS INSTITUTE OF TECHNOLOGY

Transforming Lives.Inventing the Future.

August 11, 2006

Dr. Robert Zimmer, Chairman, Fermi Research Alliance
President, University of Chicago
5801 South Ellis Avenue
Suite 502
Chicago, IL 60637

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost to the Government

www.iit.edu

Lewis Collens
President

Office of the President
Perlstein Hall, Suite 223
10 West 33rd Street
Chicago, Illinois 60616

312.567.5198
312.567.3004 Fax
c-"-ns@iit.edu

Dear Dr. Zimmer:

Illinois Institute of Technology supports the proposal of the Fermi Research Alliance for the management and operation of Fermilab. IIT has a strong connection and interest in the health of Fermilab and its future, and makes the following commitments.

IIT commits to support three joint IIT – FNAL appointments, one senior and two junior faculty appointments. On average these appointments will be filled for three years out of the five year initial term of the contract. The appointments will be in leadership and research positions that are of utility to the Fermilab program and the DOE and also advance IIT's contributions to particle physics. The approximate IIT investment for the salary support of these three appointments (for the three year average duration) is approximately $700K.

In addition, IIT will grant one full year leave of absence for faculty members to perform dedicated work in support of DOE's missions at FNAL. FNAL would provide one-third of the support and Northwestern would provide two-thirds of the support. The estimated value of two-thirds of an FTE contribution to the FNAL programs is approximately $150K over the five year initial term of the contract. Since Fermilab would otherwise have a need to hire an equivalent effort to carry out DOE programs at FNAL, this program reduces the cost to the government of these programs.

IIT commits the resources to grant five scholarships to provide 50% tuition support to children of FRA employees that are admitted to IIT. The value at $10K per year per student is approximately $50K per year or $250K over the initial five year contract period. This resource commitment provides an additional incentive in recruitment and retention of top scientific and engineering talent.

IIT commits to a 50% discount for management and technical training courses for FNAL professional and scientific staff up to a total aggregate discount of $30K/year. This will give FNAL staff the opportunity to expand their skills and to build the connections with IIT. The management efficiencies gained through the higher level of training will benefit DOE and FNAL.

Finally, IIT commits to providing the expertise of several faculty members who would design specific training courses for Fermilab staff in the diverse areas where IIT has special competencies. The aggregate commitment would be one FTE-year during the initial term of the contract representing an investment of approximately $150K.

We are pleased to offer these commitments to strengthen the future of Fermilab.

Sincerely,

cc Piermaria Oddone, Director FNAL
Fred Bernthal, President URA

EG&G
A Division of URS

August 16, 2006

Tonja Stokes
Executive Secretary
Source Evaluation Board for Selection of a Contractor for FNAL
U.S. Department of Energy
Chicago Office
9800 South Cass Ave.
Argonne, IL 60439

Re: Commitment of Resources to Fermi National Accelerator Laboratory at No Cost to the Government

Dear Ms. Stokes:

EG&G is pleased with our selection to provide operations and business management consulting services under contract to Fermi Research Alliance, LLC (FRA) in support of the Office of Quality and Best Practices. EG&G and its parent company, URS, has a long history in providing operations, quality, engineering, maintenance and management services to Government and private entities and is looking forward to being part of the Fermilab team.

In addition to our role outlined in the proposal, we commit to providing a preliminary assessment of maintenance and work control practices after award announcement, at no expense to the Government, to assist FRA in development of an improvement plan under the auspices of Quality and Best Practices.

EG&G will provide four subject matter experts to perform the assessment of current practices. The personnel will make two visits of approximately one week each with two weeks between for caucus. A brief report and presentation will follow at FRA management's convenience.

Please contact Mr. Jeff Cotton or Dr. Tom Wrenn at 435-830-4150 or 301-258-6566 respectively, if you have any questions about this subject.

Sincerely,

Randall A. Wotring
President
EG&G Technical Services, Inc.

200 Orchard Ridge Drive
Suite 100
Gaithersburg, MD 20878
PHONE (301) 258-8581
FAX (301) 721-2220

ATTACHMENT J.5

APPENDIX E

KEY PERSONNEL

Applicable to the Management and Operation of Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

APPENDIX E

KEY PERSONNEL

Nigel Lockyer	**Director**
Joseph Lykken	**Deputy Director**
Timothy Meyer	**Chief Operating Officer**

ATTACHMENT J.6

APPENDIX F

RESERVED

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

ATTACHMENT J.7

APPENDIX G

PURCHASING SYSTEM REQUIREMENTS

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

Appendix G

Purchasing System Requirements

This Appendix and Clause I.128, “Contractor Purchasing System,” sets forth DOE requirements applicable to the Purchasing System established under the Contract for the management of Fermi National Accelerator Laboratory.

Subcontracts Not Binding on DOE

As used herein, the term “subcontracts” includes subcontracts, purchase orders, letter agreements, basic ordering agreements, consultant agreements, micro-purchases, EDI and FACNET transactions, and lower tier subcontracts under cost-type subcontracts (in an unbroken cost-type chain) that represent costs properly chargeable to the Prime Contract.

All applicable subcontracts shall be made in the name of the Contractor, shall not bind or purport to bind the Government, shall not relieve the Contractor of any obligation under the Prime Contract (including, among other things, the obligation to properly supervise and coordinate the work of subcontractors), and shall contain such provisions as are required by this Contract or as DOE may prescribe based on Federal statutes and regulations, or DOE Orders and Policies.

DOE Approval

Prior DOE written approval is required for the following actions:

1. Laboratory award of any subcontract having a value of $5,000,000.00 or greater, or any subcontract modification which will cause the value to exceed $5,000,000.00;

2. Except as otherwise expressly provided or directed, in writing, by DOE Patent Counsel with notification to the Contracting Officer, actions which involve any one of, or combination of, the following intellectual property matters:

    a. Acquisition of software by negotiated lease or license;

    b. Purchase of patents or patent license rights, including the payment of royalties and permits, or license fees;

    c. Recognition of proprietary rights, including the recognition of technical data as trade secrets; or,

d. Any restriction of DOE's use of data procured under a subcontract.

3. Inter-Contractor Purchases (ICP's) expected to exceed $1,000,000.00.

4. The purchase of utilities defined as: steam, gas, electricity, telephone lines, water and sewage.

5. Laboratory Procurement Policies and Procedures

   All additions to, modifications or deletions of, Laboratory Procurement Policies and Procedures shall be submitted to DOE for approval prior to implementation.

The above approval requirements do not eliminate any other requirement for review, concurrence, or approval of other proposed actions specified in the subject contract or DOE's right to require consent on any single or class of purchasing actions selected for special surveillance.

ATTACHMENT J.8

APPENDIX H

SMALL BUSINESS, VETERAN-OWNED SMALL BUSINESS, SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS, HUBZONE SMALL BUSINESS, SMALL DISADVANTAGED BUSINESS, AND WOMEN-OWNED SMALL BUSINESS MODEL SUBCONTRACTING PLAN

Applicable to the Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

SMALL BUSINESS, VETERAN-OWNED SMALL BUSINESS, SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS, HUBZONE SMALL BUSINESS, SMALL DISADVANTAGED BUSINESS AND WOMEN-OWNED SMALL BUSINESS MODEL SUBCONTRACTING PLAN

Identification Data

Contractor: Fermi Research Alliance, LLC

Address: Wilson & Kirk Roads

Batavia, IL 60510

Solicitation or Contract Number: DE-AC02-07CH11359

Item/Service: Management & Operation of FNAL

Total Amount of Contract (Including Options) $380,000,000.00 (Est.)

Period of Contract Performance (DAY, MO. & YR.) 10/01/2014-09/30/2015.

1. Type of Plan

X Individual Contract Plan - Individual Contract Plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

_____ Master Plan - Master Plan means a subcontracting plan that contains all of the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

_____ Commercial Plan - Commercial Plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line). The contractor must provide a copy of the approved plan. **NOTE: A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items.**

2. Goals

A. Total estimated dollar value of all planned subcontracting, i.e., with all types of concerns under this contract, is $ 100,000,000.00.

B. Total estimated dollar value and percent of planned subcontracting with small businesses (includes small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns): (% of "A"):
$ 50,000,000 and 50 %

C. Total estimated dollar value and percent of planned subcontracting with service-disabled veteran-owned small businesses (% of "A"):
$1,500,000.00 and 1.5 %

D. Total estimated dollar value and percent of planned subcontracting with veteran-owned small businesses (% of "A"):
$ 2,000,000 and 2 %

E. Total estimated dollar value and percent of planned subcontracting with HUBZone small businesses (% of "A"):
$ 1,500,000 and 1.5 %

F. Total estimated dollar value and percent of planned subcontracting with small disadvantaged business (% of "A"):
$ 5,000,000 and 5 %

G. Total estimated dollar value and percent of planned subcontracting with women-owned small business (% of "A"):
$ 5,000,000.00 and 5 %

H. Total estimated dollar value and percent of planned subcontracting with **LARGE BUSINESS** (% of "A")
$ 50, 000, 000.00 and 50 %

I. Provide a description of the principal types of supplies and services to be subcontracted under this contract, and an indication of the types planned for subcontracting to (i.e., small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), women-owned small business (WOSB), and large business (LB).

Subcontracted Supplies/ Service	SB	VOB	SDVOB	HUB	SDB	WOSB	LB
Construction Service	X				X	X	X
Janitorial Service	X				X		
Housekeeping	X					X	

Fabrications	X	X	X		X	X	X
COMPUTERS	X		X	X	X	X	X
SOFTWARE	X				X		X
Maintenance Supplies	X	X	X	X	X	X	
Construction Supplies	X	X			X		X
Office Supplies	X		X		X	X	X
Chemicals	X						X
Maintenance Services	X	X			X	X	X

J. A description of the method used to develop the subcontracting goals for small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), women-owned small business (WOSB), and large business (LB) concerns.

Past performance and general historic data. Knowledge gained from outreach efforts and communication with other contractors.

K. Indirect costs have not been included in establishing the dollar and percentage subcontracting goals stated above.

L. If indirect costs have been included, describe the method used to determine the proportionate share of such costs to be incurred with small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), women-owned small business (WOSB), and large business (LB) concerns.

3. Program Administrator

Name: Joseph P. Collins

Title/Position: Procurement Manager

Address: P.O. Box 500

Batavia, Illinois 60506

Telephone: 630/840-4169

Duties: Has general overall responsibility for the contractor's subcontracting program, i.e., developing, preparing, and executing subcontracting plans and monitoring performance relative to the requirements of this particular plan. These duties include, but are not limited to, the following activities:

A. Developing and promoting company-wide policy initiatives that demonstrate the company's support for awarding contracts and subcontracts to small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns are included on the services they are capable of providing;

B. Developing and maintaining bidder's lists of small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns from all possible sources;

C. Ensuring periodic rotation of potential subcontractors on bidder's lists;

D. Ensuring that procurement "packages" are designed to permit the maximum possible participation of small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns within State Purchasing laws and regulations;

E. Make arrangements for the utilization of various sources for the identification of small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns such as the System for Award Management (SAM) Dynamic Small Business Search, the DOE's Small Business Energy Contract database, the VetBiz database, the National Minority Purchasing Council Vendor Information Service, the Office of Minority Business Data Center in the Department of Commerce, Women Business Enterprise Council Vendor Information Service, and the facilities of local small business, small disadvantaged business (minority), women associations, and contact with Federal agencies' Small Business Program Managers;

F. Overseeing the establishment and maintenance of contract and subcontract award records;

G. Attending or arranging for the attendance of company counselors at Small Business Opportunity Workshops, Minority and Women Business Enterprise Seminars, Trade Fairs, Procurements Conferences, etc;

H. Ensure small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns are made aware of subcontracting opportunities and how to prepare responsive bids to the company;

I. Conducting or arranging for the conduct of training for purchasing personnel regarding the intent and impact of Public Law 95-507 on purchasing procedures;

J. Monitoring the company's performance and making any adjustments necessary to achieve the subcontract plan goals;

K. Preparing, and submitting timely, required subcontract reports;

L. Coordinating the company's activities during the conduct of compliance reviews by Federal agencies;

M. Reviewing solicitations to remove statements, clauses, etc., which may tend to restrict or prohibit small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns participation, where possible.

N. Ensuring that the bid proposal review board documents its reasons for not selecting low bids submitted by small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns.

O. Ensuring the establishment and maintenance of records of solicitations and subcontract award activity.

P. Ensuring that Historically Black Colleges and Universities and Minority Institutions shall be afforded maximum practicable opportunity (if applicable).

4. Equitable Opportunity

In accordance with FAR 19.704(a)(3), the contractor agrees to ensure that small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) concerns will have an equitable opportunity to compete for subcontracts. The various efforts include, but are not limited to, the following activities:

A. Outreach efforts to obtain sources:

(i) Contacting small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) trade associations.

Fox Valley General Contractors Association

(ii) Contacting small business development organizations.

DOE Small Business (OSDBU)

Office of Science Procurement Managers

Illinois Procurement Technical Assistance Center

Veterans Business Journal

(iii) Attending small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) procurement conferences and trade fairs

DOE Small Business Conference

Matchmaking Conferences

Illinois Proc. Tech. Assistance Conf.

Office of Science Procurement Managers Meeting

(iv) Potential sources will be requested from the System for Award Management(SAM)Dynamic Small Business Search, the DOE's Small Business Energy Contract database, the VetBiz database, and other electronic medium.

(v) Utilizing newspaper and magazine ads to encourage new sources.

B. Internal efforts to guide and encourage purchasing personnel:

(i) Presenting workshops, seminars, and training programs;

(ii) Establishing, maintaining, and using small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) source lists, guides, and other data for soliciting subcontracts; and

(iii) Monitoring activities to evaluate compliance with the subcontracting plan.

5. Flow-Down Clause

The contractor agrees to include the provisions under FAR 52.219-8, "Utilization of Small Business Concerns, in all subcontracts that offer further subcontracting opportunities. The contractor will also require all subcontractors, except small business concerns, that receive subcontracts in excess of $650,000 ($1,500,000 for construction) to adopt a plan that complies with the requirements of the clause at FAR 52.219-9, "Small Business Subcontracting Plan." (FAR 19.704(a) (4)).

Such plans will be reviewed by comparing them with the provisions of Public Law 95-507, and assuring that all minimum requirements of an acceptable subcontracting plan have been satisfied. The acceptability of percentage goals shall be determined on a case-by-case basis depending on the supplies/services involved, the availability of potential small business (SB), veteran-owned small business (VOB), service-disabled veteran-owned small business (SDVOB), HUBZone small business (HUB), small disadvantaged business (SDB), and women-owned small business (WOSB) and prior experience. Once approved and implemented, plans will be monitored through the submission of periodic reports, and/or, as time and availability of funds permit, periodic visits to subcontractors facilities to review applicable records and subcontracting program progress.

As prescribed in FAR Subpart 19.301(d), the Federal U.S. Government may impose a penalty against any firm misrepresenting their business size as a small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns status for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the contractor's subcontracting plan.

10. Description of Good Faith Effort

The Contractor intends to use all reasonable and good faith efforts (as described in this Plan) to award the stated percentages of the final actual subcontract base amount with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. The following steps shall be taken.

A. Issue and promulgate company-wide policy statements in support of the small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business effort. Develop written procedures and work instructions, and assign specific responsibilities regarding requirements of the applicable Public Law.

B. Review specific procurement actions for possible acquisition from eligible small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

C. Demonstrate continuing management interest and involvement in support of this effort through such actions as regular reviews of progress.

D. Train and motivate FERMI RESEARCH ALLIANCE personnel regarding the need for the support of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

E. Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, allowing time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns to enable these firms to compete fairly.

F. Counsel and discuss subcontracting opportunities with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small

business, small disadvantaged business, and women-owned small business concerns.

G. Execute Service Agreements, Teaming Agreements, and Basic Ordering Agreements with qualified small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms, as required, in an attempt to ensure availability and usage of subcontractor personnel to support FERMI RESEARCH ALLIANCE work efforts when required.

H. Make available specifications, drawings, and other relevant data so that qualified, known small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equal opportunity in preparing bids.

I. Establish and maintain a categorized list of potential subcontractors with separate identification of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

11. Construction Set-Asides

Acquisition of construction estimated to cost $3.5 million or less, including new construction, and repair and alteration of structures, shall be a small or small disadvantaged business 8(a) set-aside. For acquisition in excess of $3.5 million, small business or small disadvantaged business 8(a) set-aside will be considered on a case-by-case basis.

This subcontracting plan was submitted by:

Signature: Joseph P Collins 1/12/2015

Typed Name: Joseph P. Collins

Title: Procurement Manager

Date Prepared: December 11, 2014

Phone No.: 630/840-4169

Approval:

Agency: U.S. Department of Energy

Signature: Karen E. Ade

Typed Name: Karen E. Ade

Title: Contracting Officer

Date Prepared: 1/12/15

Phone No.: 630-840-4288

ATTACHMENT J.9

APPENDIX I

DOE ORDERS AND NOTICES
AND
LIST B – FERMILAB WORK SMART STANDARDS

Applicable to the
Management and Operation of
Fermi National Accelerator Laboratory

Contract No. DE-AC02-07CH11359

Appendix I

DOE Orders and Notices

OCTOBER 2014

ORDERS/ NOTICES	DATES	TITLE
O 130.1	09/29/1995	Budget Formulation
O 142.3A	10/14/2010	Unclassified Foreign Visits and Assignments Program
O 150.1A	03/31/2014	Continuity Programs
O 151.1C	11/2/2005	Comprehensive Emergency Management Plan
O 200.1A	12/23/2008	Information Technology Management
O 205.1B Change 3	04/29/2014	Department of Energy Cyber Security Program
O 206.1	01/16/2009	Department of Energy Privacy Program
O 206.2	02/19/2013	Identity, Credential, and Access Management
O 221.1A	04/19/2008	Reporting Fraud, Waste, and Abuse to the Office the Inspector General
O 221.2A	02/25/2008	Cooperation with the Office of Inspector General
O 227.1	08/30/2011	Independent Oversight Program
O 231.1B Change 1	11/28/2012	Environmental Safety and Health Reporting
O 232.2 Change 1	03/12/2014	Occurrence Reporting and Processing of Operations Information
O 241.1B	12/13/2010	Scientific and Technical Information Management
O 243.1B Change 1	07/08/2013	Records Management Program
O 251.1C	01/15/2009	Departmental Directives Program
O 252.1A Change 1	03/12/2013	Technical Standards Program
O 313.1	11/19/2009	Management and Funding of the Departments Overseas Presence
O 341.1A	10/18/2007	Federal Employee Health Services
O 350.1 Change 5	09/30/2014	Contractor Human Resource Management Programs
O 350.2B	05/31/2011	Use of Management and Operating or Other Facility Management Contractor Employees for Services to DOE in the Washington, D.C. Area
O 410.2 Change 1	04/10/2014	Management of Nuclear Materials
O 412.1A Change 1	05/21/2014	Work Authorization System
O 413.1B	10/28/2008	Internal Control Program

ORDERS/ NOTICES	DATES	TITLE
O 413.2B Change 1	01/31/2011	Laboratory Directed Research and Development
O 413.3B	11/29/2010	Program and Project Management for the Acquisition of Capital Assets
G 413.3-5A	09/23/2011	U.S. Department of Energy Performance Baseline Guide
G 413.3-7A	01/12/2011	Risk Management Guide
O 414.1D Change 1	05/08/2013	Quality Assurance
O 420.2C	07/21/2011	Safety of Accelerator Facilities
O 430.1B Change 2	04/25/2011	Real Property Asset Management
O 436.1	05/2/2011	Departmental Sustainability
O 442.1A	06/6/2001	DOE Employee Concerns Program
O 442.2	7/29/2011	Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health Technical Concerns
O 443.1B	03/17/2011	Protection of Human Research Subjects
O 450.2	04/25/2011	Integrated Safety Management
O 458.1 Change 3	01/15/2013	Radiation Protection of the Public and the Environment
O 462.1 Change 1	7/10/2013	Import and Export of Category 1 and 2 Radioactive Sources and Aggregated Quantities
O 470.4B Change 1	02/15/2013	Safeguards and Security Program
O 471.3 Change 1	01/13/2011	Identifying and Protecting Official Use Only Information
O 474.2 Change 2	11/19/2012	Nuclear Material Control and Accountability
O 475.1	12/10/2004	Counterintelligence
O 483.1A	11/6/2013	DOE Cooperative Research and Development Agreements
O 484.1 Change 2	06/30/2014	Reimbursable Work for the Department of Homeland Security
O 522.1	11/3/2004	Pricing of Departmental Materials and Services
O 534.1B	01/6/2003	Accounting
O 551.1D	04/2/2012	Official Foreign Travel
O 580.1A Change 1	10/22/2012	Department of Energy Personal Property Management
Std. 1090-2011	09/01/2011	Hoisting and Rigging Standard
Std. 1196-2011	4/1/2011	Derived Concentration Technical Standard

LIST B
Work Smart Set of Standards

10 CFR 1021 (DOE NEPA rules)
10 CFR 1022 (Compliance with Floodplain/Wetlands environmental review requirements)
10 CFR 1046 Subpart B, App. A, Chapter X, par. H through I inclusive. (Physical protection of security interests, protective force personnel)
10 CFR 835 (Occupational radiation protection - applicable and enforceable portions)
10 CFR 850 (Chronic Beryllium Disease Prevention Program)
10 CFR 851 (Worker Safety and Health Program)
10 CFR 860 (Trespass to land owned & leased by the U.S. Government)
17 IAC 525 and permit pursuant (Nuisance animal trapping permits)
17 IAC 3702 (Construction and Maintenance of Dams)
18 U.S. Code Sections 841-848 (Use, or threat of use, of explosives; includes civil disorders)
28 CFR 36 (Section 302(b)(2) of the Americans with Disabilities Act and Section 4.1.3(9) of the ADAAG -- accommodations and accessibility)
29 CFR 1903.13 (Imminent danger)
29 CFR 1903.2 (Posting of notice...)
29 CFR 1904 (Recordkeeping and reporting occupational injuries and illnesses)
29 CFR 1910 (OSHA general industry standards - applicable and enforceable portions)
29 CFR 1926 (OSHA construction industry standards - applicable and enforceable portions)
29 CFR 1928 Subpart C (Roll-over protective structures - applicable and enforceable portions)
29 CFR 1928 Subpart D (Safety for agricultural equipment - applicable and enforceable portions)
29 CFR 1977.12 (Exercise of any right afforded by the Act)
29 CFR 1977.4 (Persons prohibited from discriminating)
29 IAC Chapter 1, Subchapter f (Emergency services, disasters, and civil defense /ESDA/ chemical safety)
33 CFR 320-323, 328-330 (Army Corp of Engineers wetlands regs)
35 IAC (State of IL environmental regs - applicable and enforceable portions)
36 CFR 60, 63, 65 (National historic landmark program)
36 CFR 78-79 (NHPA waiver and collection curation regs)
36 CFR 800 (Protection of historic and cultural properties)
40 CFR (Federal environmental regs - applicable and federally-enforceable portions)
41 IAC 100 (Fire prevention and safety)
41 IAC 120 (Boiler and pressure vessels)
41 IAC 140 (Policy and procedures manual for fire protection personnel)

41 IAC 160 (Storage, transportation, sale and use of gasoline and volatile oils: rules relating to general storage)
41 IAC 170 (Storage, transportation, sale and use of petroleum and other regulated substances)
41 IAC 180 (Storage, transportation, sale and use of volatile oils)
43 CFR 7 (Archaeological collections)
49 CFR (Offsite) Parts 100-177 (Applicable Parts) Parts 178-199 (Applicable Parts) Parts 382-399 (Applicable Parts)
49 CFR (Onsite) Parts 382-399 (Applicable Parts) 177.848 (Segregation Table for Hazardous Materials)
50 CFR 17 (Endangered species rules)
71 IAC 400 (Illinois accessibility code, Subparts C-F)
77 IAC 830 (Structural pest control code)
77 IAC 855 (Rules for Asbestos Abatement for Public & Private Schools and Commercial & Public Buildings in Illinois)
77 IAC 890 (Plumbing code)
77 IAC 900 (Drinking water systems requirements)
77 IAC 905 (Private Sewage Disposal Code)
77 IAC 920 (Water well construction code)
77 IAC 925 (Well pump installation)
92 IAC 700 and all permits pursuant (Construction in water course permit application)
92 IAC 704 and all permits pursuant (Regulation of public waters)
92 IAC 708 and all permits pursuant (Floodway construction permit application)
105 ILCS 105 (Asbestos Abatement Act)
225 ILCS 207 (Commercial and Public Building Asbestos Abatement Act)
ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, 2005
ANSI A 17.1 (Elevator Construction)
ANSI A 17.3 (Elevator Maintenance)
ANSI A 39 (Window Washing)
ANSI B11 series (Metalworking - applicable portions)
ANSI B15.1 (Power transmission apparatus)
ANSI O1.1 (Woodworking machinery)
ANSI Z88.2 (Respiratory Protection) 1992
ANSI Z136.1 (Lasers), 2000
AWS (American Welding Standard) Z 49.1 (Cutting, Welding and Hot Work Activities) 1999

version
ANSI/ASHRAE 15 (Mechanical refrigeration) ANSI/ASME B30.10 (Hooks) 2005
ANSI/ASME B30.11 (Monorails and Underhung Cranes) 2004
ANSI/ASME B30.16 (Overhead Hoists (Underhung)) 2003
ANSI/ASME B30.17 (Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)) 2003
ANSI/ASME B30.2 (Overhead and gantry cranes) 2005
ANSI/ASME B30.20 (Below the hook lifting devices) 2006
ANSI/ASME B30.21 (Manually Lever Operated Hoists) 2005
ANSI/ASME B30.22 (Articulating Boom Cranes) 2002
ANSI/ASME B30.5 (Mobile and locomotive truck cranes) 2004
ANSI/ASME B30.9 (Slings) 2003
ANSI/ASME B31.1 (Power piping) 2001, B31.1a 2002, Addenda to b 31.1 2001
ANSI/ASME B31.3 (Process Piping) 2004
ANSI/ASME B31.5 (Refrigeration piping) 2001
ANSI/ASME B31.8 (Gas transmission and piping systems) 2003
ANSI/ASME B31.9 (Building Services Piping) 1996
Archaeological and Historic Preservation Act of 1974 (P.L. 93-291)
Archaeological Resources Protection Act of 1979 [amended], 16 USC 470aa et seq.
ASME Pressure Vessel Code - Section VIII
ASME B20.1-1996 (Safety Standard for Conveyors & Related Equipment)
Atomic Energy Act of 1954 [amended], 42 USC 2011 et seq.
ANSI N323A-1997 (Radiation Protection Instrumentation Test and Calibration, Portable Survey Instruments)
ANSI N323D-2002 (American National Standard for Installed Radiation Protection Instrumentation)
ANSI/ISA – 84.00.01 – 2004 Application of Safety Instrumented Systems for the Process Industries
Batavia Code of Regulations, City Ordinance, Section 8-3-10-3
International Building Code Fire Prevention Code (latest edition)
International Building Code (latest edition)
Boiler & Pressure Vessels of the Illinois Office of the State Fire Marshall - applies to CUB Boilers Only
CERCLA/SARA, 42 USC 9601 et seq.
City Code of Warrenville, IL Title 7, Chapter 4, sewer/sewerage ordinance
Clean Air Act Amendments 1990, 42 USC 7401 et seq., and Illinois State Implementation Plan, 40 CFR 52 Subpart O
Clean Water Act, 33 USC 1251 et seq.
DOE Order 420.2C Safety of Accelerator Facilities

DuPage County Health Department Private Water Supply Ordinance (Chapter 18, Article 18-4, DuPage County Code)
E.O. 11988 (Floodplain Management)
E.O. 11990 (Protection of Wetlands)
E.O. 12580 (Implementation of superfund)
E.O. 13058 (Protecting Federal Employees and the Public from Exposure to Tobacco Smoke in the Federal Work Place)
E.O. 13423 (Strengthening Federal Environmental, Energy, and Transportation Management)
E.O. 13514 (Federal Leadership in Environmental, Energy, and Economic Performance)
Endangered Species Act, 16 USC 1531 et seq.
Federal Facility Compliance Act, 42 USC 6961
Fermilab Nuclear Materials Control and Accountability Implementation Plan
FESHM 2010 (Planning and review of accelerator facilities and their operations)
FESHM 3010 (Significant and Reportable Occurrences) (formerly, Occurrence reporting)
FESHM 5031 (Pressure vessels)
FESHM 5031.1 (Pressure piping systems)
FESHM 5032 (Cryogenic system review)
FESHM 5032.1 (Liquid nitrogen dewar installation rules)
FESHM 5032.2 (Guidelines For the Design, Fabrication, Testing, Installation, and Operation of LH2 Targets)
FESHM 5032.3 (Transporting gases in building elevators)
FESHM 5033 (Vacuum vessel safety)
FESHM 5033.1 (Vacuum window safety)
FESHM 5035 (Mechanical refrigeration systems)
FESHM 5040 (Fermilab electrical safety program)
FESHM 5041 (Electrical utilization equipment safety)
FESHM 5042 (AC electrical power distribution safety)
FESHM 5043 (Management and use of cable tray systems)
FESHM 5044 (Protection against exposed electrical bus)
FESHM 5046 (Low voltage, high current power distribution systems)
FESHM 5048 (Hazard Mitigation for Electrical Workers)
FESHM 5064 (Oxygen deficiency hazards)
FESHM 5066 (Fall Protection Program)
FESHM 5084 (Ergonomics Program)
FESHM 6020.3 (Installation of flammable gas lines in or near cable trays)
FESHM 9030 (Aviation safety)
FIFRA, 7 USC 136 et seq.

FRCM Article 362 (X-Ray Generating Devices & Radiography Sources)
FRCM Article 411 (Radioactive Material Identification, Storage and Control - Definitions)
Handbook for Sampling & Sample Preservation of Water and Wastewater, EPA-600/4-82-029
IEC 61511, Functional Safety, Safety Instrumented Systems for the Process Industry Sector
Illinois Chemical Safety Act, 430 ILCS 45/1 et seq.
Illinois Compiled Statutes (ILCS) Chapter 625 (State vehicle code -- Applicable Portions)
Illinois Department of Public Health, DuPage County Dept. Public Health. CDC December 7,1990
Illinois Endangered Species Protection Act, 520 ILCS 10/1 et seq.
Illinois Ground Water Protection Act, 415 ILCS 55/1 et seq.
Illinois Health and Safety Act, 820 ILCS 225/1 et seq.
Illinois Pesticide Act, 415 ILCS 60/1 et seq.
Illinois Structural Pesticide Act, 225 ILCS 235/1 et seq.
Kane County Health Department Ordinance 04-199/05-141 Water Well Code
National Fire Protection Association Codes and Standards (NFPA Standards - applicable portions)
NFPA (National Electric Code), 2005
NFPA-520 Standard on Subterranean Spaces, version 2005
NFPA 70E (Standard for Electrical Safety in the Workplace), 2004 (except, Tables 130.7(C)(9) (Hazard/Risk Category Classification), 130.7(C)(10) (Protective Clothing and Personal Protective Equipment), and 130.7(C)(11) (Protective Clothing Characteristics))
NFPA 70E (Standard for Electrical Safety in the Workplace), 2009 (Tables 130.7(C)(9) (Hazard/Risk Category Classification), 130.7(C)(10) (Protective Clothing and Personal Protective Equipment), and 130.7(C)(11) (Protective Clothing Characteristics))
National Historic Preservation Act of 1966 [amended], 16 USC 470 et seq.
Native American Graves Protection and Repatriation Act of 1990, 25 USC 3001 et seq.
NEPA, 42 USC 4321 et seq.
OSH Act, 29 USC 654(a)(1) -- General duty clause.
Pressure Equipment Directive (PED) 97/23
Privacy Act of 1974, 5 USC 552a
RCRA Part B Permit (Illinois Log #131), including Emergency Contingency plan
RCRA, 42 USC 6901 et seq.
Recommended standards for Water Works, Great Lakes Upper Mississippi R. Bd. of State Public Health & Environmental Managers (1992)
Safe Drinking Water Act, 42 USC 300f et seq.
Standard Methods for the Examination of Water and Wastewater, 18th Ed., APHA (1992)
Standards and Specifications for Soil Erosion and Sediment Control, 10/87, IEPA 87-102
TSCA, 15 USC 2601 et seq.
UL Listing

Uniform Federal Accessibility Standards, Chapter 4, Accessible Elements and Spaces: Scope and Technical Requirements
Energy Solutions LLC Bulk Waste Disposal and Treatment Facilities Waste Acceptance Criteria
Rather than attempt a precise analysis of all necessary standard citations to exclude non-applicable parts, inclusive citations were made qualified by the phrase "applicable and enforceable parts thereof." To the extent these standards apply to DOE and not the contractor, the contractor will assist DOE in complying with them. This Set does not change any existing Federal, State or local enforcement authority. For standards not applicable as a matter of law (other than FESHM provisions), the applicable version shall be the revision in effect on July 14, 1995, unless otherwise indicated. For FESHM provisions, the applicable version shall be the most recent version established through the procedures set forth in Appendix I.