

FRA CODE OF BUSINESS ETHICS AND CONDUCT PROGRAM

Fermi Research Alliance, LLC (FRA) has a firm commitment to fair and ethical behavior and FRA's reputation for adhering to high ethical standards is one of its most valuable assets. This Policy Memorandum establishes the FRA Code of Business Ethics and Conduct Program for all FRA employees (including Corporate Officers) and incorporates existing FRA and Fermilab policies and procedures. Principally, this Program is composed of Code of Business Ethics and Conduct, an Employee Awareness Program, a reporting system which enables employees to report suspected violations of this policy, and an Internal Control System.

Code of Business Ethics and Conduct

- I. The FRA Code of Business Ethics and Conduct incorporates and is composed of the following:
 - (1) The FRA Employee Standards of Conduct including: Gratuities, Conflicts-of-Interest, and Outside Employment, attached;
 - (2) The FRA Conflicts of Interest Policy, attached;
 - (3) The Code of Conduct set forth in the Director's Policy Manual found at http://www.fnal.gov/directorate/Policy_Manual.html;
 - (4) The Standards of Conduct set forth in the Fermilab Personnel Policies maintained by the Workforce Development and Resources Section and found at <http://wdrs.fnal.gov/policies/toc.html>;
 - (5) The Outside Employment/Consulting Policy set forth in the Fermilab Personnel Policies maintained by the Workforce Development and Resources Section and found at <http://wdrs.fnal.gov/policies/toc.html>;
 - (6) The Anti-Nepotism Policy set forth in the Fermilab Personnel Policies maintained by the Workforce Development and Resources Section and found at <http://wdrs.fnal.gov/policies/toc.html>;
 - (7) The FRA Financial Interest Disclosure Policy set forth in the Fermilab Personnel Policies maintained by the Workforce Development and Resources Section and found at http://wdrs.fnal.gov/section/disclosure_form.pdf; and
 - (8) The Fermilab Procurement Policies and Procedures Manual maintained by the Business Services Section and found at http://bss.fnal.gov/protect/Procurement_Manual.doc.

All FRA employees, officers, directors, managers, and agents, are required to comply with these standards, together with applicable local, state, and federal laws and any applicable grant and contractual requirements. As an FRA employee, any actions that you take in the course of your day-to-day activities and in relationships with customers, suppliers, contractors, and others is expected to be fully justifiable and not to be a cause for concern, or bring unfavorable publicity or embarrassment to FRA if disclosed. These standards apply to your conduct both on and off the job. You are expected to avoid unethical actions and/or Conflicts of Interest (both actual and the appearance of a Conflict), as well as report any Conflicts.

II. Code of Business Ethics

In addition to the requirements of the above-stated policies, FRA employees (including Corporate Officers) shall:

- (1) Reject any plan, transaction, or arrangement involving unlawful or unethical conduct;
- (2) Avoid any arrangement, agreement, investment, employment, relationship, act, or interest that is, or appears to be, contrary to the best interests of the or its customers, or that in any way might impair the objective performance of duties or the exercise of independent judgment or action with respect to the interests of FRA or its customers;

- (3) Protect and maintain the security of confidential, proprietary, and privileged information related to FRA or associated with its activities, including financial data related to operations of FRA. Such information includes that furnished by customers, suppliers, contractors, or others under conditions of confidentiality; and
- (4) Provide professional and impartial opinions and judgments and act in accordance with the best interests of FRA and its customers

III. Code of Conduct

Since there may not always be existing regulations or standards to guide you in every situation, you are expected to apply your own high personal sense of ethics, which should extend beyond minimum compliance with applicable laws, in the day-to-day performance of company business. In addition to the requirements of the above-stated policies, FRA employees (including Corporate Officers) shall:

- (1) Treat others with respect and dignity – your coworkers, clients, vendors, and all others with whom you interact on behalf of FRA;
- (2) Maintain a safe workplace to protect and preserve the well-being of FRA staff, the public, and the environment;
- (3) Comply with the laws, regulations, and contractual obligations, policies, and professional standards governing Fermilab's business;
- (4) Be honest in your communications, activities, and relationships. All business information and records must be accurate and complete. Failure to provide complete information is just as unacceptable as providing false information;
- (5) Maintain the confidentiality of the sensitive information of Fermilab and those with whom we do business;
- (6) Respect the intellectual property rights of others and report promptly all inventions and intellectual property developments to appropriate FRA personnel;

IV. Conflicts of Interest

In addition to the requirements of the above-stated policies, FRA employees (including Corporate Officers) shall:

- (1) Avoid conflicts of interest of any kind (actual conflicts or the appearance of a conflict) , including those that might arise between your FRA responsibilities (including interactions with the Department of Energy or business partners of FRA) and your personal activities and relationships. If a conflict arises, disclose it to FRA management immediately;
- (2) Do not solicit gifts or gratuities. Do not accept anything that others could think obligates you to the giver. Do not offer a gift or gratuity unless you know it is legally permitted. Bribes and kickbacks are always prohibited;
- (3) Do not make unauthorized business commitments. You should always comply with established delegations of authority

Employee Awareness Program

To assist employees, this FRA Code of Business Ethics and Conduct Program will foster ongoing awareness. All employees will continue to receive an annual written reminder outlining their duty to comply with this FRA Code of Business Ethics and Conduct Program. Additionally, all employees will be required to complete annual online training through their Individual Training Needs Assessments (ITNAs).

Internal Control System

To ensure program effectiveness, FRA has an internal control system that facilitates timely discovery of improper conduct in connection with Government contracts and ensures corrective measures are promptly instituted and carried out. FRA's internal control system provides for periodic reviews of company business practices, procedures, policies, and internal controls for compliance with this Code of Business Ethics and Conduct and the special requirements of Government contracting; utilize the Fermilab Action Line (extension 4000, or 630-840-4000 from off-site) through which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports; Additionally FRA conducts both internal and external audits, as appropriate; and takes disciplinary action for improper conduct.

When unsure whether an action complies with this FRA Code of Business Ethics and Conduct ask yourself the following questions:

- Is the action legal?
- Is it ethical?
- Does it comply with or contravene FRA policy?
- Might it appear inappropriate?
- If it became known, might it result in embarrassment either within or outside FRA or DOE?

If there is, or appears to be, an issue that you are unable to resolve, you should consult your supervisor, manager, Human Resources, the Fermilab Action Line (extension 4000 or 630-840-4000 from off-site), or the General Counsel (extension 3572 or 630-840-3572 from off-site).

Approved by the FRA Board of Directors 12/21/06

BE IT RESOLVED THAT the FRA Board of Directors approves the following policies on FRA Employees Standards of Conduct and on FRA Conflict of Interest, to satisfy DOE contractual requirements, and to satisfy IRS application requirements for 501(c)(3) status, respectively

FERMI RESEARCH ALLIANCE, LLC (FRA)

FRA Employee Standards of Conduct including: Gratuities, Conflicts-of-Interest, and Outside Employment

I. POLICY

FRA requires that all its employees (including compensated Corporate Officers) conduct themselves with the highest standards of integrity, honesty, and fair dealings, to preclude either an actual conflict, or the appearance of conflict between FRA's performance, including its contractual obligations to DOE, and the personal interests of individual employees. FRA has no general prohibition against employees having appropriate outside employment. However, all employees engaged in outside employment must provide prior notification of such activities and receive FRA written approval. The following guidelines and requirements provide a means for management and employees to assess whether or not certain activities may present a conflict situation.

II. GUIDELINES

PURPOSE

These guidelines document the requirements to be followed by all FRA part-time and full-time employees (and consultants where applicable) in order to avoid actual or the appearance of personal conflicts-of-interest. They also document the requirements of FRA's contract with the U.S. Department of Energy (DOE) concerning conduct of employees, consultants, or other comparable employment service conflict of interest and requirements with respect to technology transfer activities, including the preparation, negotiation, or approval of "Cooperative Research and Development Agreements" (CRADAs).

SCOPE

These guidelines apply to all FRA employees at the Fermi National Accelerator Laboratory, FRA Corporate Office, and any other FRA-operated Government-owned laboratory or FRA major project (as designated by the FRA President) and consultants where indicated.

DEFINITIONS

1. The term "financial interest" includes the following circumstances:
 - a. An employee has a financial interest in an organization where an employee is negotiating or has any arrangement with such organization (other than FRA) concerning prospective employment.
 - b. An employee shall be deemed to have a financial interest where the employee, his or her spouse, child, parent, sibling or partner is employed by, serves as an officer, director, trustee or holds an equity interest in an organization other than FRA.
 - c. A financial interest does not include investments that are part of pensions, mutual funds, annuities, and similar financial investment instruments that is widely held and widely diversified. A financial investment instrument is considered widely diversified when the shares in the business in question constitute no more than five percent of the value of the portfolio.
2. The term "privileged information" includes but is not limited to, unpublished information relating to technological and scientific developments; medical, personnel or security records of individuals; anticipated procurement requirements or pricing actions; negotiating positions taken by FRA in connection with entering into an agreement with other entities, foreign or domestic; possible new sites for DOE program operations; internal DOE decisions, policy development; invention disclosures, trade secrets, protected data, and information generated under CRADAs, Work for Others, or other Laboratory agreements; and knowledge of selections of contractors or subcontractors in advance of official announcements.
3. The term "kickback" means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly 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 contract or subcontract.

4. The term "utilization of FRA developed intellectual property" includes 1) all of the activities related to those situations where FRA has elected to take title to or asserts ownership in intellectual property (as specified in the appropriate DOE contracts), and 2) activities of FRA employees who are licensees of such properties, or who are sharing in royalties from such properties.

5. The term "gratuities" shall include the following. The direct or indirect acceptance or solicitation from a person or organization by a FRA employee, spouse, or other dependents of any gift, gratuity, entertainment (including food, refreshments, tickets, or invitations to performances and other events) favors, loans, transportation, accommodations, or any other thing of monetary value if the person (organization):

- a. has or is seeking to obtain contractual or other business or financial relationship with FRA, or
- b. has an interest that may be substantially affected by the FRA employee's performance or nonperformance of his/her official duty at FRA or
- c. is in any way attempting to influence the action by a FRA employee in his/her responsibilities.

GRATUITIES

1. Employees shall not accept any gratuity or special favor from individuals or organizations with whom FRA is doing business or proposing to do business in accomplishing the work under the contract. Except for advertising novelties of nominal value, gratuities from any person shall be refused or returned. Meals to discuss business matters may be accepted only where provision for separate payment by the employee cannot reasonably be made. Gifts from foreign governments or agencies which cannot be appropriately refused may be accepted and Legal Counsel shall be notified. Legal Counsel will provide advice on appropriate disposition.

2. An employee shall not (directly or indirectly) give, offer, or promise anything of value to any actual or potential subcontractor or subcontractor employee in an attempt to influence (or which might reasonably be interpreted as an attempt to influence) the recipient, or which could possibly create an obligation to the recipient. Any solicitation, acceptance or attempt to accept any "kickback" may be a criminal act subject to imprisonment for not more than 10 years and/or subject to a maximum fine of \$250,000.00.

USE OF PRIVILEGED INFORMATION

Neither FRA nor its employees may use or provide to others, information developed or obtained by, or furnished to FRA under its prime contracts with DOE and subcontracts thereunder which are not in the public domain, except in the performance of work under the contract and as otherwise authorized under FRA's contracts with DOE. In no event is an employee or consultant to use such information for personal gain or any other improper use.

OUTSIDE EMPLOYMENT

1. Although there is no general prohibition against employees having outside employment, full-time and part-time employees shall not engage in employment for another entity or in self-employment at any time, if such employment will interfere with the proper and effective performance of the duties of the employee's position or create an actual conflict or the appearance of a conflict between FRA's interests, including performance of its contract obligations, and the personal interests of the employee or appear to subject DOE or FRA to public criticism or embarrassment.

An employee, including a part-time employee, contemplating the performance of consultant or comparable services for other entities, involving the use of information acquired in the course of the employee's work under FRA's management and operating (M&O) contracts with DOE will be required to give special attention to assure there will be no impairment of the patent and copyright obligations of the employee and FRA, or appear to subject DOE, FRA, or another federal agency (funding work of FRA) under a federal contract or grant to public criticism or embarrassment..

2. An employee, including a part-time employee, contemplating consultant or comparable employment service for an organization in the atomic energy field, as defined in the Atomic Energy Act of 1954 as amended, (other than a DOE cost-type contractor) which may involve:

- a. a rate of remuneration significantly in excess of the employee's regular rate of remuneration;
- b. a significant question concerning possible conflict with DOE's policies regarding conduct of employees;
- c. FRA's responsibility to report fully and promptly to DOE all significant research and development information; or
- d. the patent provisions of FRA's prime contracts with DOE;

shall, in addition to obtaining FRA approval as indicated hereafter, obtain (through FRA) the prior approval of the assigned DOE Contracting Officer.

4. The Department of Energy Acquisition Regulation (DEAR 970.0371-8), applicable to Management & Operating (M&O) contractors, also requires employee disclosures of outside employment include:

A. Acknowledgement that the employee has read and is familiar with:

1) The requirements and restrictions here prescribed,

2) DOE publication entitled, "Reporting Results of Scientific and Technical Work Funded by DOE," and

3) The requirements of the contractor's contract with DOE relating to patents;

B. Include information concerning any rate of remuneration significantly in excess of the employee's regular rate of remuneration;

C. Address any potential impacts that such employment may have on the contractor's responsibility to report fully and promptly to DOE all significant research and development information; and

D. Identify any potential conflicts such employment may have with the patent provisions of the contractor's contract with DOE.

5. The contractor shall provide a copy of all disclosures to the Contracting Officer.

DISCLOSURE AND APPROVAL OF OUTSIDE EMPLOYMENT

Prior to engaging in any outside employment, consulting or similar activity (including those activities performed without any monetary compensation), employees are to obtain the written approval of the designated FRA official [such designation will be set forth in the required implementation of the FRA policy], and where required, FRA will seek the approval of the cognizant DOE Contracting Officer.

DISCLOSURE OF FINANCIAL INTERESTS

1. Employees shall not be permitted to make or influence any decisions on behalf of FRA which directly or indirectly affects the interests of FRA or DOE if the employees' personal concern in the matter may constitute a conflict of interest or the appearance of a conflict of interest. For example, an employee of FRA will not negotiate or influence the award of a subcontract with a company in which the individual has an employment relationship or a significant financial interest. An employee will not be assigned to the preparation of an evaluation for FRA, or DOE, or another DOE contractor, of some technical aspect of the work of another organization which the employee has an employment relationship, or significant financial interest, or which is a competitor of an organization (other than FRA) in which the individual has an employment relationship or significant financial interest.

2. Employees and consultants are expected to disclose any conflicts of interest or appearances of conflict of interest between duties performed for FRA and their private interests and to refer questions to the designated FRA official for resolution. Accordingly, FRA requires certain employees to make a written disclosure of financial interests or activities which might create actual or potential conflict-of-interest as defined herein. Subject to any contract requirements, such disclosures will be held in confidence and properly safeguarded.

3. The FRA Laboratory is responsible for communicating this policy on conflict-of-interest disclosure to all employees and for assuring that a conflict-of-interest disclosure form has been completed by all persons with financial interests, affiliations or situations described in the prior sections and holding certain designated positions.

CONFLICTS-OF-INTEREST TECHNOLOGY TRANSFER

In addition to the requirements set forth above, there are specific contract requirements which must be observed for technology transfer activities, including activities related to commercial utilization of URA-developed intellectual property.

1. Each employee who has a substantial role, including an advisory role, in the preparation, negotiation or approval of a CRADA must execute a certification that he/she does not have a financial interest in any entity (other than FRA) that has a substantial interest in preparation, negotiation or approval of a CRADA. Copies of each such certificates will be provided to the Contracting Officer by FRA. However, if a financial interest exists and Laboratory management determines that there is programmatic need for the employee to participate on that particular CRADA, the matter may be referred to the Contracting Officer in advance of such participation for determination as to whether the employee's financial interest is not so substantial as to be considered likely to affect the integrity of the employee's participation in the CRADA process.

2. The FRA Laboratory will review and approve any activities related to commercial utilization involving FRA-developed intellectual property (including work performed using royalties) to avoid conflicts-of-interest and interference with DOE projects and programs, as well as user facility and work for others programs. The non-Federal sponsors of work for others activities or non-Federal users of user facilities will be notified of any relevant intellectual property interests of FRA prior to the execution of work for others or user agreement.

3. The Contracting Officer will be notified by FRA with respect to any new work to be proposed or to be performed where the new work or proposal involves intellectual property in which FRA has obtained or intends to obtain rights.

4. The approval of the Contracting Officer will be obtained by FRA prior to any assignment, exclusive licensing, or option for exclusive licensing of intellectual property to any laboratory employee or consultant, or to any person who has been a laboratory employee or consultant within the previous two years, or to the company in which he or she is a principal.

IMPLEMENTATION AT FRA-OPERATED GOVERNMENT-OWNED LABORATORIES AND OTHER DESIGNATED FRA OPERATIONS AND /OR MAJOR PROJECTS.

Each FRA operated Government-owned laboratory [e.g., Fermilab] and all separate operations or major projects (as designated by the President of FRA), shall prepare an implementation of this FRA Corporate Policy on "Employees Standards of Conduct," which shall include procedures, identify those employees required to make a written disclosure, and the FRA official designated to approve outside employment, as well as the FRA official designated to respond to employee questions concerning conflicts between FRA duties and employee private interests.

**Fermi Research Alliance, LLC
Conflict of Interest Policy**

Article 1
Purpose

The purpose of the FRA conflict of interest policy is to protect this tax-exempt organization's (Organization) interest when it is contemplating entering into a transaction or arrangement that might benefit private interest of an officer or director of the Organization or might result in a possible excess benefit transaction. This policy is intended to supplement, but not replace FRA "Standards of Conduct," and any applicable state and federal laws governing conflict of interest applicable to nonprofit and charitable organizations.

Article II
Definitions

1. Interested Person

Any director, principal officer, or member of a committee with governing board delegated powers (compensated or uncompensated), who has a direct or indirect financial interest, as defined below, is an interested person.

2. Financial Interest

A person has a financial interest if the person has, directly or indirectly, through business, investment, or family:

- a. An Ownership or investment interest in any entity with which the Organization has a transaction or arrangement,
- b. A compensation arrangement with the Organization or with any entity or individual with which the Organization has a transaction or arrangement, or
- c. A potential ownership or investment interest in, or compensation arrangement with, any entity or individual with which the Organization is negotiating a transaction or arrangement.

Compensation includes direct and indirect remuneration as well as gifts or favors that are not insubstantial.

A financial interest is not necessarily a conflict of interest. Under Article III, Section 2, a person who has a financial interest may have a conflict of interest only if the appropriate governing board or committee decides that a conflict of interest exists.

Article III
Procedures

1. Duty to Disclose

In connection with any actual or possible conflict of interest, an interested person must disclose the existence of the financial interest and be given the opportunity to disclose all material facts to the directors and members of committees with governing board delegated powers considering the proposed transaction or arrangement.

2. Determining Whether a Conflict of Interest Exists

After disclosure of the financial interest and all material facts, and after any discussion with the interested person, he/she shall leave the governing board or committee meeting while the determination of a conflict of interest is discussed and voted upon. The remaining board or committee members shall decide if a conflict of interest exists.

3. Procedures for Addressing the Conflict of Interest

- a. An interested person may make a presentation at the governing board or committee meeting, but after the presentation, he/she shall leave the meeting during the discussion of, and the vote on, the transaction or arrangement involving the possible conflict of interest.
- b. The chairperson of the governing board or committee shall, if appropriate, appoint a disinterested person or committee to investigate alternatives to the proposed transaction or arrangement.
- c. After exercising due diligence, the governing board or committee shall determine whether the Organization can obtain with reasonable efforts a more advantageous transaction or arrangement from a person or entity that would not give rise to a conflict of interest.
- d. If a more advantageous transaction or arrangement is not reasonably possible under circumstances not producing a conflict of interest, the governing board or committee shall determine by a majority vote of the disinterested directors whether the transaction or arrangement is in the Organization's best interest, for its own benefit, and whether it is fair and reasonable. In conformity with the above determination it shall make its decision as to whether to enter into the transaction or arrangement.

4. Violations of the Conflicts of Interest Policy

- a. If the governing board or committee has reasonable cause to believe a member has failed to disclose actual or possible conflicts of interest, it shall inform the member of the basis for such belief and afford the member an opportunity to explain the alleged failure to disclose.
- b. If, after hearing the member's response and after making further investigation as warranted by the circumstances, the governing board committee determines the member has failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

Article IV
Records of Proceedings

The minutes of the governing board and all committees with board delegated powers shall contain:

a. The names of the persons who disclose or otherwise were found to have a financial interest in connection with an actual or possible conflict of interest, the nature of the financial interest, any action taken to determine whether a conflict of interest was present, and the governing board's or committee's decision as to whether a conflict of interest in fact existed.

b. The names of the persons who were present for discussions and votes relating to the transaction or arrangement, the content of the discussion, including any alternatives to the proposed transaction or arrangement, and a record of any votes taken in connection with the proceedings.

Article V
Compensation

a. A voting member of the governing board who receives compensation, directly or indirectly, from the Organization for services is precluded from voting on matters pertaining to that member's compensation.

b. A voting member of any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the Organization for services is precluded from voting on matters pertaining to that member's compensation.

c. No voting member of the governing board or any committee whose jurisdiction includes compensation matters and who receives compensation, directly or indirectly, from the Organization, either individually or collectively, is prohibited from providing information to any committee regarding compensation.

Article VI
Annual Statements

Each director, principal officer, and member of a committee with governing board delegated powers shall annually sign a statement which affirms such person:

- a. Has received a copy of the conflicts of interest policy,
- b. Has read and understands the policy,
- c. Has agreed to comply with the policy, and
- d. Understands the Organization is charitable and in order to maintain its federal tax exemption it must engage primarily in activities which accomplish one or more of its tax-exempt purposes.

Article VII
Periodic Reviews

To ensure the Organization operates in a manner consistent with charitable purposes and does not engage in activities that could jeopardize its tax-exempt status, periodic reviews shall be conducted. The periodic reviews shall, at a minimum, include the following subjects:

- a. Whether compensation arrangements and benefits are reasonable, based on competent survey information, and the result of arm's length bargaining.
- b. Whether partnerships, joint ventures, and arrangements with management organizations conform to the Organization's written policies, are properly recorded, reflect reasonable investment or payments for goods and services, further charitable purposes and do not result in inurement, impermissible private benefit or in an excess benefit transaction.

Article VIII
Use of Outside Experts

When conducting the periodic reviews as provided for in Article VII, the Organization may, but need not, use outside advisors. If outside experts are used, their use shall not relieve the governing board of its responsibility for ensuring periodic reviews are conducted.