5/17/05

NOvA Working Group Meeting Agenda
May 18, 2005 3-5pm
The Black Hole

1) Discuss DRAFT NOvA Project Timeline for Critical Decisions & Reviews

2) Environmental Schedule (Alternatives/Approaches)
   a) University of Minnesota state action
      i) Funding for Minnesota EAW (Environmental Assessment Work)
      ii) EAW at alternate site(s)
      iii) Funding for early efforts beginning immediately
   b) DOE federal action
      i) EA – Environmental Assessment (&FONSI – Finding of No Significant Impact)
      ii) EIS – Environmental Impact Statement (ROD – Record of Decision)
   c) DOE M 413.3-1 Section 13.2.2 chapter 13 pages10-12

3) Impact of Environmental Schedule on Timeline
   a) primarily a state action → "touch and go" (O(18 months))
   b) primarily a federal action → possibly much more time required (>= additional year)

4) Staffing of NOvA Project Office

5) Project Management Documents Timeline
   (Acquisition Plan [support DOE as needed])
   Conceptual Design Report
   Project Execution Plan
   Project Management Plan
   Preliminary Hazard Analysis Report

6) Draft Charge for Preliminary Director's Review

7) Potential Dates for Preliminary Director's Review
   a) June 14-16, 2005
   b) July 18-20, 2005

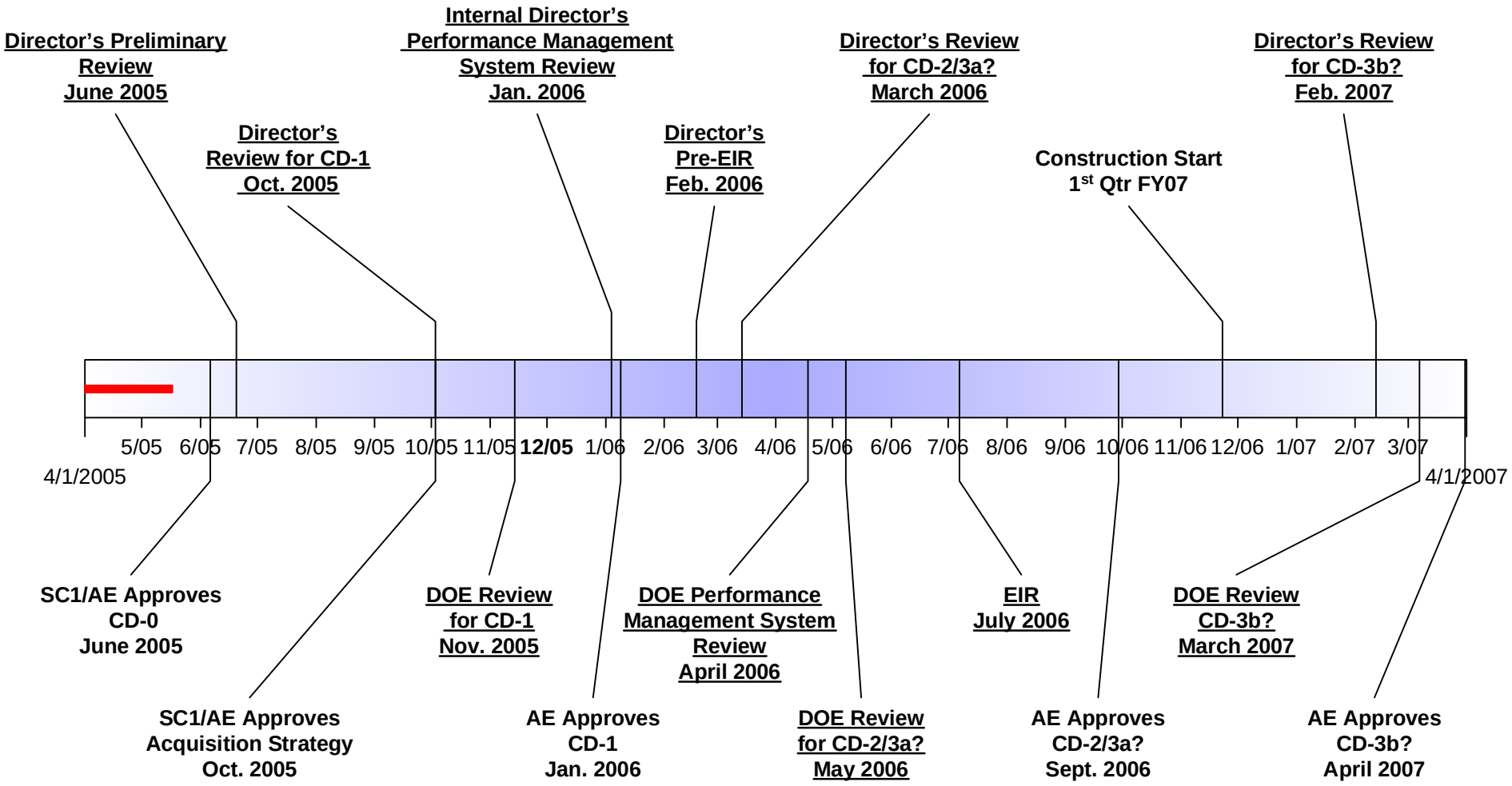
8) Configuration Management ANSI / EIA 649

9) Document Database
   a) WelcomHome Demonstration – Dean Hoffer
   b) BTeV Document Database – Arrange through Joel

10) Schedule and Participants for NOvA Working Group Meetings

DRAFT NOvA Project Timeline for Critical Decisions & Reviews

Updated 29-Apr-05



conduct all activities in a manner appropriate to the nature, scale, and environmental impacts of these activities, while maintaining compliance with applicable Federal and State legislation and regulations. Specific implementation practices and requirements are described in Section 3.2.2.

13.2.1 Background

International Standards Organization 14001 principles have been effectively used by DOE sites and projects to implement an environmental management system as required by Executive Order 13148. ISO 14001 defines a framework for the system associated with most projects. The system is composed of the elements of an organization's overall management structure that address the immediate and long-term impact on the environment of its products, services, and processes.

13.2.2 Environmental Protection and Compliance

Each project is to be implemented under a written environmental management process to anticipate and meet growing environmental performance expectations, and to ensure ongoing compliance with regulatory requirements. This management process may either be facility/project specific or a site-wide management system. Environmental management processes are discussed in Executive Order 13148, *Greening the Government Through Leadership in Environmental Management* and DOE Guide 450.4-1A, *Integrated Safety Management System Guide*. The environmental baseline for a project is to be established prior to any work being performed at the worksite. For remediation projects, the environmental baseline is typically provided as an integral part of the baseline risk assessment. Environmental baseline monitoring may be required considerably before beginning construction.

Implementation of an environmental management system may be through compliance with, and certification to ISO 14001, *Environmental Management Systems—Specification with Guidance for Use*. In general, a project's environmental management system should achieve the principles noted below.

- Assess potential environmental impacts.
- Assess legal and regulatory requirements.
- Establish an appropriate life-cycle environmental policy, including a commitment to prevention of pollution.
- Determine the legislative requirements and environmental aspects associated with project activities, products, and services.
- Develop management and employee commitment to the protection of the environment with clear assignment of accountability and responsibility.
- Encourage environmental planning throughout the project's life cycle for all project activities from planning through closeout.
- Establish a disciplined management process for achieving targeted performance levels.

- Provide appropriate and sufficient resources, including training, to achieve targeted performance levels on an ongoing basis.
- Establish and maintain an emergency preparedness and response program.
- Continuously evaluate environmental performance against policy, appropriate objectives and targets, and seek improvement where appropriate.
- Establish and maintain appropriate communications with the customer as well as internal and external stakeholders.
- Encourage and, as appropriate, require contractors and suppliers to establish an environmental management system or other type of written environmental management process.

Environmental considerations are part of most projects regardless of the project type (e.g., design, construction, environmental cleanup, or facility startup). The Integrated Project Team needs to understand the regulatory framework for the various environmental regulations—particularly those associated with environmental cleanup. Support to the Integrated Project Team would normally include support from an environmental specialist. The typical steps each project needs to complete to ensure it meets its environmental stewardship commitment are outlined in Figure 13-2.

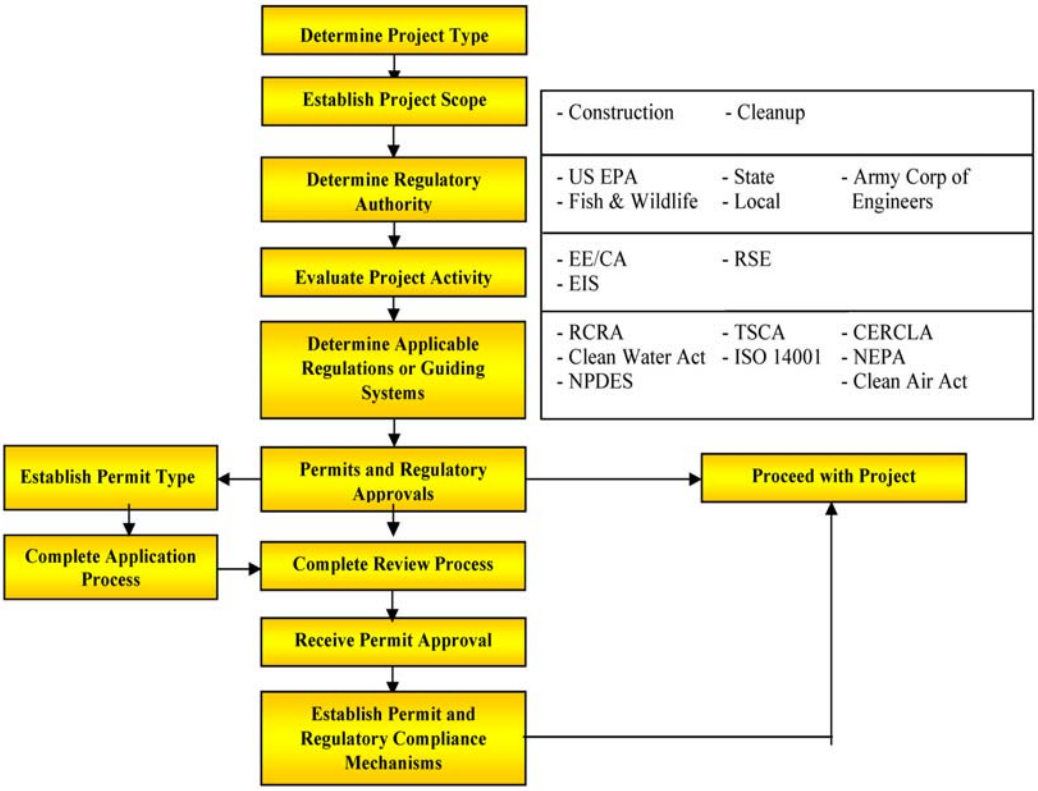


Figure 13-2. Typical Environmental Activities for DOE.

An example of one of the environmental regulations that may be applicable to the project is the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA). CERCLA is guided by the National Oil and Hazardous Substance Pollution Contingency Plan, commonly referred to as the National Contingency Plan. This plan outlines the steps that will be followed in responding to situations in which hazardous substances, pollutants/contaminants, or oil are inadvertently released into the environment. The National Contingency Plan establishes the criteria, methods, and procedures that the U.S. Environmental Protection Agency and other Federal agencies (including DOE) are required to use to determine priority releases for long-term evaluations and response.

The National Contingency Plan does not specify project cleanup levels or how cleanup will be conducted. The National Contingency Plan relies on other regulations, (e.g., *Resource Conservation and Recovery Act*, *Clean Water Act*, and *Clean Air Act*) to provide clean-up levels and the framework for managing a CERCLA project site. Figure 13-3 outlines the CERCLA regulatory hierarchy. DOE projects may have additional environmental regulations that must be met. The *National Environmental Policy Act* process is an example of one such regulation. This process is a decision-making and planning tool for any DOE project that could have an environmental impact, not just environmental cleanup projects.

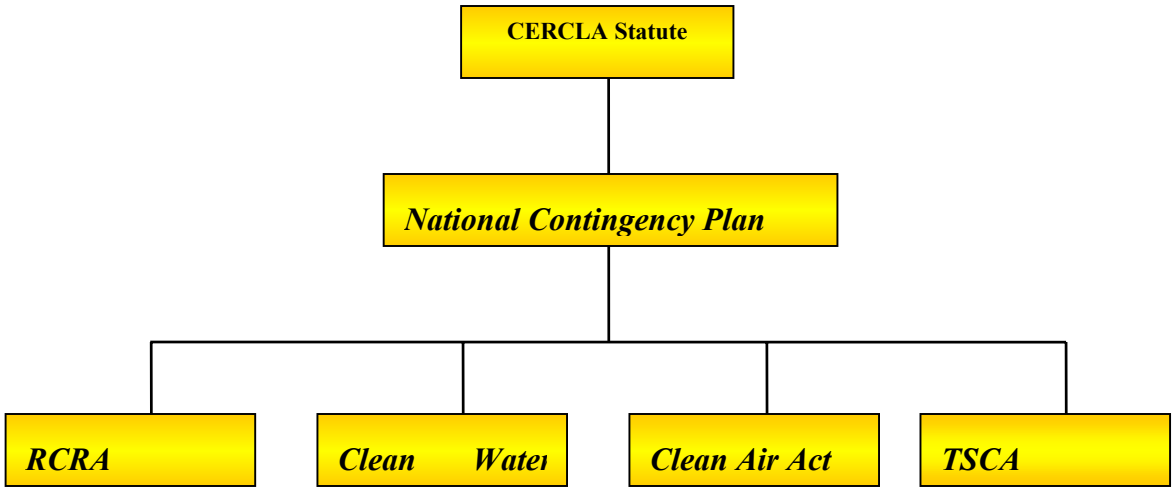


Figure 13-3. CERCLA Regulatory Hierarchy.

13.3 QUALITY ASSURANCE

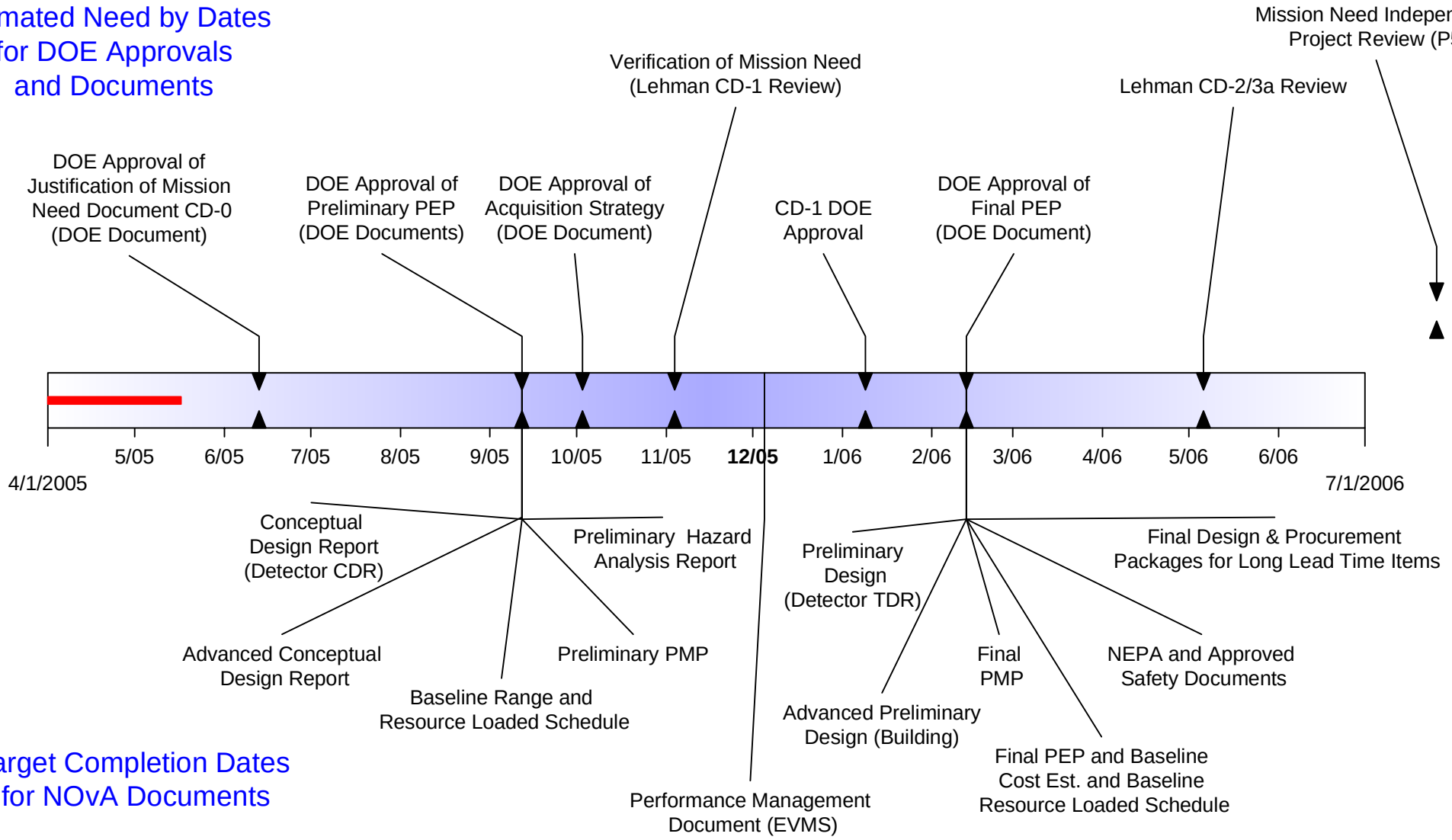
The Project Director is responsible for planning and implementing a Quality Assurance Program for the project and ensuring that quality is integrated with the project along with safety, health, and environmental protection. The line organizations are responsible for ensuring the quality of the project. Quality Assurance begins at project conception and runs through design, development, construction, fabrication, operation, remediation, and decontamination and decommissioning. Quality affects cost, availability, effectiveness, safety, and impact on the environment. Therefore, appropriate aspects of Quality Assurance need to be given careful consideration during the preparation of project documentation. This is accomplished when there

NOvA Project
Draft Critical Design Prerequisites

Updated 17-May-05

Fermilab

Estimated Need by Dates for DOE Approvals and Documents



Target Completion Dates for NOvA Documents

Charge for Director's Preliminary Review of the NOvA Project June/July ??, 2005

Will cover the Technical / Cost / Schedule / Management aspects of the "project" to the extent plausible or sensible. It is recognized that this review is being conducted at a very early stage of the NOvA project, thus it is a "preliminary" review and material presented may not (will likely not) be developed to the level of sophistication or detail of a more mature project.

Technical

- Are the physics requirements stated? The physics justification has been reviewed and Stage 1 approval was recommended by the Fermilab Physics Advisory Committee (PAC).
- Have these physics requirements been translated into technical performance requirements / specifications?
- Can the design be built? Does the design meet the meet the technical specifications? Is it a reasonable design?

Cost

- Has a Work Breakdown Structure (WBS) been developed or other listing of cost elements been prepared?
- Do the cost estimates for each WBS (or cost) element have a sound basis and are they reasonable?

Schedule

- Is there a schedule for the project?
- If, so are the activity durations reasonable for the assumed resources?
- Has the schedule been "resource loaded."

Management

- Is there an appropriate management organizational structure in place or proposed to accomplish the design and construction?
- Have responsibilities been assigned or have they been proposed?
- Are there adequate staffing resources available or planned for this effort?
- Is there a funding plan available or proposed to meet the resource requirements to realize the detector?

The Director's Review Committee is asked to present findings, comments, and recommendations in a closeout session with th NOvA Collaboration and Fermilab Management at the end of the review and in a written report soon thereafter.

Possible Invitees - Attendees at NOvA Project Working Group Meetings

Mike Witherell, Director
Pier Oddone, Director Designate

Ken Stanfield, Deputy Director
Hugh Montgomery, Associate Director for Research

Joanna Livengood, Manager DOE Fermi Site Office
Ron Lutha, Deputy Manager DOE Fermi Site Office

John Cooper, Co-Spokesman
Gary Feldman, Co-Spokesman
Ron Ray, NOvA Project Office
Bill Freeman, Scheduler
Suzanne Pasek, Budget Person
Dave Boehlein, NOvA Project Office

Ed Temple, Head Ofice Project Management Oversight
Dean Hoffer, Office Project Management Oversight

One or more CD Representative
Vicky White, Head Computer Division
Bob Tschirhart, Computer Division

One or more PPD Representative
Jim Strait, Head Particle Physics Division
Greg Bock, Deputy Head Particle Physics Division
Joel Butler, Associate Head Particle Physics Division for Experiments