



Charge to the Ocean Observatories Initiative

Preliminary/Final Design Review

December 4-7, 2007

The NSF requests that the OOI Preliminary/Final Design Review (PDR/FDR) Panel assess the robustness of the technical design and completeness of the budget and construction planning for the Ocean Observatories Initiative (OOI) project. The PDR/FDR Panel will scrutinize the effectiveness of project management through this stage of development, as well as plans for the remaining design work, construction, commissioning and eventual operation of the network. The Panel will also review progress made by the Project Team on the findings of the Conceptual Design Review Panel.

Specifically, the PDR/FDR Panel will review the following major elements of the OOI Project Execution Plan (PEP):

Management:

- Work breakdown structure (WBS) and structure dictionary defining scope of WBS elements
- Project schedule (resource-loaded)
- Project governance and organizational structure
- Plans and commitments for interagency and international partnerships
- Acquisition plans, sub-awards and subcontracting strategy
- Configuration control plans
- Internal and institutional oversight plans, advisory committees, and plans for building and maintaining effective relationships with the broader research community that will eventually utilize the facility to conduct research
- Education and outreach plans
- Quality control and quality assurance plans
- Environmental plans, permitting and assessment of future permitting needs
- Safety and health issues
- Systems integration, testing, acceptance, commissioning and operational readiness criteria
- Plans for transitioning to operational status, including systems integration, testing, acceptance, commissioning, and operational readiness criteria for all components of the OOI

Scope: (Will largely rely on the "Blue Ribbon" results from the October-November review)

- Description of the research objectives motivating the facility proposal
- Science Requirements – the comprehensive statement of the science requirements to be fulfilled by the proposed facility (to the extent possible identifying minimum essential as well as desirable quantitative requirements), which provide a basis for determining the scope of the associated infrastructure requirements
- Description of the infrastructure necessary to obtain the research objectives
- Systems engineering requirements
- Description of scope and schedule contingency

Budget:

- Project budget, by WBS element

- Description of the basis of estimate for budget components
- Project risk analysis and description analysis methodology
- Contingency budget and description of method for calculating contingency
- Contingency management
- Project technical and financial status reporting, function of the Program Management Control Software (PMCS), and description of financial and business controls
- Estimates of operations and maintenance cost for the facility

The OOI Program Manager will work with the Panel to identify in advance specific questions and areas of concern related to the preliminary design of the OOI and its oversight and planning. These topics, in addition to the two questions below, will serve to focus the review on the areas of most critical concern:

- *Is the project ready to begin construction/implementation?*
- *Are there recommendations for further planning activities that should be done before NSF makes MREFC construction funding available to the project office?*

OOI PDR/FDR Schedule:

Review materials will be made available to the review panel and NSF via a password protected website by November 19th, 2006.

Day 1

- Plenary session to led by the project staff and associated experts to orient the review panel and NSF staff on progress related to OOI science, engineering, and management.
- Review of overarching OOI management
- Plenary where the panel will present questions and concerns to the project team to be addressed at the start of day 2.

Day 2

- Plenary session where project team will address questions and concerns presented at the end of day 1.
- Break out sessions will review specific OOI WBS elements.
- Plenary where the panel will present questions and concerns raised in the breakout groups to the project team to be addressed at the start of day 3.

Day 3

- Plenary session where project team will address questions and concerns presented at the end of day 2.
- Breakout sessions continue.
- Panel begins writing their report sections.
- Meet in plenary at the end of the day to address any lingering questions and concerns of the Panel.

Day 4

- Review Panel drafts PDR report and presents a summary of the report findings to the project team at a closeout session.

Panel Report:

The panel's final OOI PDR/FDR Review report will respond to each section of the charge. NSF requests that the draft report be submitted at the end of the review (December 7th) to the Project Team for fact checking. Any comments on the draft must be submitted to NSF by December 9th through the OOI Program Manager who will distribute them to the Panel. The final PDR/FDR report from the panel should be submitted to NSF by December 16th.