



**General Programmatic Terms and Conditions for the Deep Underground Science and Engineering Laboratory (DUSEL) Site and Conceptual Design Cooperative Agreements (NSF 05-506)**

- a. **Reporting Requirements:** The Awardee will submit the following reports for NSF Project Officer review and approval:
- Interim Report, due no later than January 27, 2006. The report should be no more than 10 pages in length, including any exhibits;
  - The Conceptual Design Report (CDR), due no later than June 23, 2006. The content requirements are specified in 1)b, below. NSF will provide formatting specifications within 60 days of award. Unless otherwise indicated by the Program Officer, the Awardee will submit the CDR via FastLane using the Final Project Report category.
- b. **Conceptual Design Report (CDR) Requirements:** The CDR shall include the following:
1. The management plan and organizational structure that would be applied to the construction and the operations phases of the DUSEL. The plan should include but not be limited to:
    - The framework and as many details as are appropriate to describe how all essential construction, operation, and decontamination and decommissioning activities for the DUSEL will be carried out;
    - A timeline for constructing the DUSEL and conducting the first phase of experiments;
    - Management of safety and health issues during construction, operations and decommissioning phases.
  2. The conceptual design for the laboratory, and for the science and engineering to be carried out at the proposed site, including:
    - Identification of an initial suite of experiments;
    - Specification and design of the laboratory infrastructure necessary to accommodate the technical requirements of the initial suite of experiments;
    - The long term capability of the site to accommodate science and engineering; the engineering requirements for accommodating science & engineering beyond the initial suite of experiments should also be addressed;

- A plan for exploring and promoting international cooperation.
3. Specification of site-specific issues, including:
    - The geological and hydrological characterization of the site;
    - A plan for developing, producing, and publicizing an environmental assessment of the site, as well as a publication and dissemination strategy for that assessment;
    - Permitting requirements;
    - Sharing infrastructure, if relevant, with a non-laboratory entity;
    - Identification of any short- and long-term construction activities beyond current state-of-the-practice, along with a proposed design team for such activities; in this context, identification of research, instrumentation, monitoring, and any other activities needed in order to validate the design and minimize risk;
    - Accessibility of the proposed site, including transportation.
  4. Analysis of risk factors, with plans for risk management and mitigation, including but not limited to:
    - Geological and/or hydrological characterization of the site;
    - Environmental requirements;
    - Permitting requirements;
    - Sharing infrastructure with a non-laboratory entity;
    - Ownership of site;
    - Other risks associated with past, concurrent, or possible future mining activities.
  5. A plan for designing, developing and incorporating programs for education, outreach, and human resource development.
- c. **Review of the Conceptual Design Report:** An external review panel will be tasked with assessing the strength of the Conceptual Design Report, including the leadership team's capability to develop and manage a world-class, cost effective, timely, and multidisciplinary site. In conducting its analysis, the review panel will assess all required elements of the CDR for potential risks that might impact the success of the proposed DUSEL program. The review panel will also employ the two National Science Board approved merit review criteria, as follows:
- ***What is the intellectual merit of the proposed activity?*** How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposed team to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

- ***What are the broader impacts of the proposed activity?*** How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

NSF staff will give careful consideration to the following:

- ***Integration of Research and Education.*** One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.
  - ***Integrating Diversity into NSF Programs, Projects, and Activities.*** Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.
- d. **Commitment of the Government:** NSF support provided for the conceptual design through this award does not imply the funding or creation of an underground laboratory.
- e. **Other Government Agency/International Activities:** Any Government Agency and International activities related to DUSEL remain the responsibility of the NSF Program Officer and may not be undertaken by the Awardee on behalf of NSF without the explicit approval of the NSF Project Officer and NSF Grants and Agreements Official.