



DOE STRATEGIC LABORATORY MISSIONS PLAN

INTRODUCTION

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The Citizens Advisory Board to the Idaho National Engineering Laboratory met with Department of Energy and LMITCO personnel during its November 19-20, 1996, and January 20-21, 1997, meetings and received presentations on the *DOE Strategic Laboratory Missions Plan* and the *INEL Long Range Plan*. Board members also toured the INEL Research Center in preparation for developing the following recommendation.

RECOMMENDATION

The Board has addressed its recommendations to the Department of Energy on the Draft *Strategic Laboratory Missions Plan* according to technical and editorial content. Accordingly, the document must be revised as follows to accurately reflect the status of the INEL.

- Elaborate on the laboratory's four core competencies. These are described in the attachment and include processing and management of radioactive and hazardous materials; physical systems modeling, testing, and validation; applied environmental science, engineering, and technology demonstration; and complex engineering-economic systems analysis and integration.
- Elaborate on the key technologies and capabilities of the INEL, including bioprocessing, chemical separations and processing, sensor and diagnostics systems, robotics, and other outstanding technical capabilities.
- Include additional discussion of the INEL as the lead laboratory for Spent Nuclear Fuel, the Mixed Waste Focus Area, and the Plutonium Focus Area, and the work being completed on LLW and TRU waste.
- Add discussion about the Advanced Mixed Waste Treatment Facility, including the performance-based specifics of the contract, key players, and pertinent goals and milestones. Although this project is not part of the INEL basic R&D capability, it reflects the overall low cost for INEL operation and epitomizes the privatization efforts being made by DOE to increase efficiency and effectiveness and decrease the cost of government work.
- Include notation that the INEL possesses significant research capabilities, but the emphasis of these activities is to develop specific solutions to environmental management problems. The multi-program nature of the laboratory allows more flexibility in approaching these problems and offers real-time adjustment capabilities. The INEL is more advanced than other DOE sites and laboratories in applying engineering solutions. The laboratory possesses scale-up capabilities other sites do not and it is managed with an emphasis on cost-effectiveness. The overhead costs relative to direct costs associated with INEL operations is lower than the multiplier at all other DOE laboratories.
- Add discussions and examples of systems engineering and project management accomplishments.
- Tie the *Strategic Laboratory Missions Plan* to the *INEL Long-Range Plan*, particularly emphasizing how core technologies support the five INEL business elements:

1. National Environmental Engineering and Technology Complex
2. Waste Treatment Center
3. National Security Missions
4. Nuclear Technologies and Applications
5. Derived National Missions

The document also contains numerous inaccuracies and inconsistencies which must be resolved. Some of these are as follows:

- Pit 9 is listed in Volume I, page 66, as a “significant accomplishment.” While this is intended to be a pioneering effort in privatization, remediation has not yet begun and this reference should be omitted.
- The representation of the INEL’s FY95 funding profile is inaccurately reflected throughout the document. Attached is an itemization of the inconsistencies. If the numbers are correct, the document should include appropriate footnotes and explanations for the differences. If the numbers are erroneous they must be corrected.
- Modify the “Key Research and Development Activities” in Volume I, on page 64, to correlate with the “DOE Mission Footprint” categories (i.e., National Security, Energy Resources, Science, and Environmental Quality) as it is with the other laboratories. Since this is not correctly reflected in Volume I, the INEL is incorrectly reflected in Volume II where the breakout by DOE mission categories occurs.

The INEL CAB applauds DOE’s efforts to integrate and streamline laboratory activities to increase efficiency and decrease costs complex-wide. However, the Board recommends completion of a more thorough, accurate, and objective report to base future decisions about the missions and existence of each DOE laboratory.