III. MISSION AND VISION FOR THE DOE LABORATORIES

Mission of the DOE Laboratories

The mission of the DOE laboratories is to deliver science and technology-based solutions that serve the Department's national security, energy resources, environmental quality, and science missions. The laboratories develop, maintain, and apply unique, world-leading science and technological facilities and capabilities, and collaborate with industry, universities, and other Federal laboratories to pursue the Department's missions, and make their capabilities available to others in the national interest.

The Department has a simple and clear vision for its laboratories in the 21st century: The laboratories will:

- Maintain the highest standards of excellence in science and technology;
- Have well-defined roles in achieving the Department's mission outcomes;
- Be well integrated with the Nation's R&D enterprise; and
- Be recognized as highly efficient and cost effective research institutions.

Excellence in science and technology. The laboratories must be world class in all of the areas of science and technology that they pursue. The Department will follow the principle of supporting the best performer of R&D for the particular work. Investments in the laboratories will be focused to ensure that each laboratory has the facilities and critical mass of expertise to achieve world-class technical excellence.

Well-defined roles. Each laboratory will be focused around a small number of missions and will have distinctive technical competencies that support those missions. Major investments in the laboratories will be disciplined around those areas. The laboratories will be well linked with each other, and will team with other laboratories whenever appropriate to bring complementary competencies to bear on complex problems.

Integrated with the Nation's R&D enterprise. The laboratories will be recognized as having strong, mutually supportive links to other agencies, universities, and industry. The distinctive competencies of the laboratories will be built around the missions of the Department, but the laboratories will use these competencies to serve other customers as well. In this sense, the laboratories will be true National laboratories, managed by the Department for the

Nation. The work for other customers will be selected to reinforce the core missions and long-term vision of the laboratories. The amount of this work will increase, resulting from the Department's efforts to make it easier for the laboratories to do work for others and from the laboratories' increased cost-effectiveness.

Highly efficient and cost-effective. The laboratories will have substantially reduced overhead costs and staff not directly related to the performance of R&D. In addition, researchers will spend less time doing administrative paperwork. This change not only will provide greater value from the investment in the laboratories, but also will make the laboratories more attractive places for top scientists to work. The laboratories complex will be sized properly to perform its functions efficiently.

Reforms that are already underway at the Department and its laboratories to make the laboratories more cost-effective are described in Box 1. Issues related to the size of the laboratories are discussed in the following section. The approach the Department will take to ensure excellence in science and technology, define the mission roles of laboratories, and integrate the labs in the Nation's R&D enterprise are addressed in sections V and VI.

Box 1. Management Reforms at the DOE Laboratories

A series of actions already under way will result in the laboratories being much more cost-effective by the year 2000. The Department has:

- Reformed and dramatically reduced its directives and orders, which are the means by which the Department establishes formal requirements and guidance for the conduct of work by employees of the Department and its contractor workforce. During 1995, the Department reduced the number of orders by 50 percent (from 312 to 156) and revised the 100 most burdensome orders into user-friendly documents. The Department expects to reduce the number of orders by an additional 10 percent by September 1996.

- Pursued a graded approach to the application of environment, safety and health standards at the National Laboratories. This approach will tailor a "necessary and sufficient" set of standards to each facility at a laboratory site, rather than imposing the most restrictive standards required for a specific facility to the whole site. This process will result in a reduction in administrative oversight and the associated costs. Six pilot projects were successfully conducted during 1995; in January 1996 the Secretary authorized the expansion to all laboratories on a non-mandatory basis (with some limitations for Defense Nuclear Facilities)."

- Begun to move from a system of self-regulation to a system of external regulation. The Department's existing complex system of self-regulation emerged from the Manhattan Project, the Atomic Energy Commission, and Congressional actions related to the urgency of the nuclear weapons mission and the need for secrecy at the weapons production complex. An advisory committee on external regulation provided its findings to the Department in 1995. A departmental working group was established to evaluate these findings and has been tasked with identifying an internal safety management system, which may incorporate the use of external regulators and/or regulations. The final report of this working group will be submitted to the Secretary on July 31, 1996.

- Begun reform of the audit/appraisal process, which includes business practice reviews; technical reviews; and environment, safety, and health reviews conducted by the Department and other review groups. The Department's pilots have drastically reduced the number of reviews. During the pilot period (April 1995 to April 1996 for 16 laboratories) the Department reduced the number of business practice reviews from 324 to 21, person-days of effort from 28,000 to 9,300, and costs from $10.2 million to $2.8 million.

- Revised procurement procedures. The Department's M&O contractors previously had been expected to conform to Federal purchasing principles and practices. In 1995, the Department replaced this system with one based on the use of best commercial practices. The Department and its contractors are now working to identify and share best commercial procurement practices.

In addition, the DOE laboratories have eliminated unnecessary administrative functions and reengineered processes to cut costs. For example, the National Renewable Energy Laboratory has cut its subcontracting process from 140 steps to 40 steps, which has reduced the cycle time for contracting from 460 days to 35 days and enabled the lab to reduce its procurement workforce by 32 percent. Similarly, the Pacific Northwest National Laboratory's laboratory-wide reengineering effort launched during 1995 will cut administrative costs by 30 percent ($60 million) in two years. Initiatives such as these are enabling the laboratories to cut overhead costs and enhance productivity. As of March 1996, cost-cutting at the DOE laboratories was expected to result in more than $1.7 billion in savings by the year 2000.