The Regents of the University of California

COMMITTEE ON OVERSIGHT OF THE DEPARTMENT OF ENERGY LABORATORIES
March 13, 2002

The Committee on Oversight of the Department of Energy Laboratories met on the above date at UCSF–Laurel Heights, San Francisco.

Members present: Regents Atkinson, Davies, Marcus, Montoya, Moores, Morrison, Pattiz, Preuss, Sayles, and Seymour; Advisory member Terrazas

In attendance: Regents Blum, Connerly, T. Davis, Hopkinson, Johnson, Kozberg, Lee, Lozano, and Saban, Regents-designate Ligot-Gordon and Sainick, Faculty Representatives Binion and Viswanathan, Associate Secretary Shaw, General Counsel Holst, Treasurer Russ, Provost King, Senior Vice Presidents Darling and Mullinix, Vice Presidents Broome, Gurtner, and McTague, Chancellors Berdahl, Bishop, Carnesale, Cicerone, Dynes, Tomlinson-Keasey, Vanderhoef, and Yang, Acting Chancellor Warren, and Recording Secretary Bryan

The meeting convened at 9:45 a.m. with Committee Chair Moores presiding.

1. **APPROVAL OF MINUTES**

Upon motion duly made and seconded, the minutes of the meeting of November 14, 2001 were approved.

2. **ANNUAL REPORT OF THE PRESIDENT'S COUNCIL ON THE DEPARTMENT OF ENERGY LABORATORIES**

Mr. William Friend, Chair of the President's Council on the Department of Energy Laboratories, presented the ninth annual report of the Council, which he recalled had been established in 1992 to advise on all aspects of the operation and management of the laboratories. He focused on how the Council interacts with the University and the DOE laboratories that are part of the University community, and on its work through its meetings and through its five constituent panels, two of which deal with the basic operations and three of which deal with functional activities: laboratory security, project management, and environmental health and safety.

Mr. Friend discussed the activities of the functional panels. The Laboratory Security Panel is one of the most important. During the last year it has been focusing on relationships with DOE officials who are responsible for security and has been working with the laboratories to meet the challenges imposed by the heightened attention to security in the post-September 11 environment. One of its largest concerns is cyber-security, or protection of the laboratories' vast computing resources

and information. A second functional panel is Project Management. During the past few years, the panel has been working with the laboratories on all of their major projects, the result of which is that project management at the laboratories has improved greatly. He noted that the National Ignition Facility, which previously was over budget, is on schedule and within budget. It is the largest scientific project under way in the world. The emphasis of the work of the Environmental Health and Safety Panel has been integrated safety management, which is a cultural change that drives safety down to the individual worker. It has also focused on bio-safety issues and is heavily involved with the communities at the three laboratory locations. The two line panels, Science and Technology and National Security, focus on the basic business of the laboratories. The National Security Panel works primarily with the Livermore and Los Alamos laboratories on their weapons programs. Most of its time is spent on stockpile stewardship. It attempts to foster collaboration and cooperation between the laboratories, which were designed to be competitors. Some part of that competitive relationship must be preserved, as the laboratories serve as each others' peer reviewers, but in a world of limited funds, ways must be found of eliminating duplication and of collaborating more effectively. They have made important progress, such as in the project of life extension programs for the various weapons systems. Also, subcritical tests performed at the Nevada Test Site are reviewed by the National Security Panel.

Mr. Friend commented that the importance of the laboratories has been recognized more fully since September 11. They have been working on non-proliferation issues for many years. Homeland security is something new by name but not new to the laboratories, which were able to respond in impressive ways to the recent threats to the country because they had been working on related projects prior to the anthrax scare and the attacks on the World Trade Center and the Pentagon.

Science and technology is the core business of all three laboratories. Mr. Friend noted that one of the challenges of the Science and Technology Panel is to grade the laboratories in specific areas. The grades do not tell the whole story, however. The University operates almost half of the top computing capability of the world. With the exception of the San Diego Supercomputing Center, these computers are all at the laboratories. Added to the thousands of personal computers connected to the internet, they pose a huge challenge in terms of security.

Mr. Friend mentioned that the President's Council was very active with the three laboratories, under the Lawrence Berkeley Laboratory's leadership, in promoting the development of the Joint Genome Institute, which played an important role in the sequencing of the human genome. The Science and Technology Panel was particularly important in facilitating that collaboration.

Mr. Friend explained that the work of the five panels is reported to the Council, which meets at each laboratory annually to cover the full spectrum of their activities. He recalled that in the recent past, major problems at the laboratories had been reported

daily in the press. He reported that in 2001 the collective annual score in the three areas of grading – laboratory management, science and technology, and administration and operations – placed all three laboratories in the outstanding range. The Council will continue to work with the laboratories in an effort to maintain this high standard. The Council's primary concern going forward is maintaining the quality of the expertise at the laboratories by retaining valued staff, recruiting the best and brightest employees, and providing meaningful opportunities for career development. The Council is also focused on assessing major initiatives with a view toward determining how the laboratories perceive their future. Some of the most important initiatives on the horizon concern biology, nanoscience, and advanced radiography.

In summary, Mr. Friend believed that the administration and the Regents should be pleased about the current state of affairs at the laboratories. The times are challenging; the environment following September 11 has created a new set of issues on which the laboratories must focus.

Regent Montoya asked whether peer review of the laboratories is conducted by outside reviewers as well as by their peers within the laboratories. Mr. Friend responded that the primary peer reviews of the weapons programs are well established between the Livermore and Los Alamos laboratories. The challenge is to be dispassionate reviewers one day, competitors on another, and collaborators on a third. The laboratories do have extensive external peer reviews at the department level. That information serves as input for the Science and Technology Panel of the President's Council.

Regent Lee asked how the laboratories have been contributing to the safety of the country since September 11. Mr. Friend responded that they were being very active in all the issues involved in securing the assets under their purview and responsibility. They have been working with the newly formed Homeland Security Administration on a number of initiatives. There were, however, specific requests made of the laboratories, which have leading capability in that area, with respect to bio-terrorism, and they played a role in supporting the investigations during the anthrax scare. They continue to be closely linked with the operating arms of the government. President Atkinson added that the instruments that monitor the environment for nuclear and biological threats were developed at the laboratories. The food supply of the country, for instance, has become increasingly dependent upon technologies developed there. The importance of the close relationship between the laboratories and University faculty has proved more important than ever.

Regent Hopkinson noted that the annual report points out some areas of significant concern. Among these are the recruitment and retention of employees. Mr. Friend responded that the laboratories contain a wealth of talent. The Council is encouraging the laboratories to improve their employee development programs. Retention statistics have improved dramatically following the matters of recent years associated with security, and the post-September 11 environment has provided new incentives for

working there. The laboratories are using the substantial strength of their association with the University as a recruiting tool. Twenty-five percent of all science papers emanating from the laboratories have a University faculty member and/or student as a co-author.

Regent Preuss reminded the newer Regents that the Board's oversight as trustees of the University required them to act in its best interests. He believed that in the case of their oversight of the DOE laboratories, they were also acting in the best interests of the country by fulfilling the important role of supporting and protecting a national resource.

Regent-designate Terrazas noted that in the Council's annual report it was stated that the University and the National Science Administration may face the need for an increase in the laboratories' funding for the National Ignition Facility (NIF) to cope with the challenges that are likely to emerge given the high level of risk involved in developing the project. He asked whether cost overruns may be expected. Mr. Friend responded that the current financial outlook for NIF was positive but that additional funding may be required depending on how future tests go, based on the fact that there is no precedent for the NIF.

Regent Montoya commented that the Council's report suggests that more funds may be needed for the Livermore laboratory's unclassified cyber-security projects. Vice President McTague recalled that two years ago safeguards and security were centralized in DOE, causing the Livermore and Los Alamos laboratories to lose a substantial amount of their cyber-security budgets, although they received large increases in funding for physical security. The Council has worked hard with DOE to restore the previous level of cyber-security funding. He emphasized, however, that at no time has the level of attention devoted to cyber-security at the laboratories been decreased.

Regent Pattiz asked about the laboratories' budgeting process, particularly as it affects long-term planning based on commitments from the federal government. Vice President McTague responded that there is a five-year strategic plan. There are substantial scientific facilities and construction budgets at all the laboratories that stabilize long-range output. Also, it is possible to reallocate funds if they are needed to meet unforeseen demands.

Committee Chair Moores asked when a full-blown test of NIF would occur and when it would go on line. Mr. McTague stated that the first light should be produced by the end of 2003, which represents a one-to-two-year acceleration of the schedule. Activation of the 192 laser beams will occur in stages, with full power expected to be achieved as soon as 2008. He noted that in the meantime, valuable research will be conducted at the facility.

The meeting adjourned at 10:20 a.m.

Attest:

Associate Secretary