

The Regents of the University of California

**COMMITTEE ON OVERSIGHT OF THE
DEPARTMENT OF ENERGY LABORATORIES**

May 21, 2015

The Committee on Oversight of the Department of Energy Laboratories met on the above date at UCSF–Mission Bay Conference Center, San Francisco.

Members present: Regents De La Peña, Kieffer, Pattiz, Reiss, Sherman, and Zettel; Ex officio members Napolitano and Varner; Advisory member Gilly

In attendance: Regents Elliott, Engelhorn, Gould, Lansing, Leong Clancy, Lozano, Makarechian, Ortiz Oakley, Pérez, Ruiz, and Saifuddin, Regents-designate Davis, Gorman, and Oved, Faculty Representative Hare, Secretary and Chief of Staff Shaw, General Counsel Robinson, Chief Compliance and Audit Officer Vacca, Provost Dorr, Executive Vice President and Chief Financial Officer Brostrom, Executive Vice President Stobo, Senior Vice President Peacock, Vice Presidents Brown, Budil, Duckett, and Sakaki, Chancellors Block, Gillman, Khosla, Wilcox, and Yang, and Recording Secretary McCarthy

The meeting convened at 12:25 p.m. with Committee Chair Pattiz presiding.

1. APPROVAL OF MINUTES OF PREVIOUS MEETING

Upon motion duly made and seconded, the minutes of the meeting of March 19, 2015 were approved.

2. UPDATE ON THE DEPARTMENT OF ENERGY LABORATORIES

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Committee Chair Pattiz was pleased to report that the University had agreed to a framework developed by the federal government and the State of New Mexico regarding Los Alamos National Laboratory (LANL) and the Waste Isolation Pilot Plant (WIPP), the remediation of the problem at the WIPP, and related fines. The University's position that it was protected by the Limited Liability Company allowed a framework to be developed that relieved the University of any liability beyond the scope of what had already been assessed against the University. The University had excellent support from its corporate partners. Committee Chair Pattiz complimented Vice President Budil on her effectiveness in protecting the interests of the University.

Committee Chair Pattiz commented about an incident at LANL in which an employee was severely burned during a preventive maintenance operation at an electrical substation

-serving the Los Alamos Neutron Science Center. The employee was transported offsite to Albuquerque for medical treatment and remained in serious but stable condition. Eight other employees were transported to the Los Alamos Medical Center in connection with the accident and were released shortly thereafter. The Board of Governors of the Los Alamos National Security LLC takes any issues of this nature very seriously. The University and its corporate partners would contribute their expertise to ensure the cause of the problem would be rectified.

3. **ENGINEERING INSTITUTE: A SUSTAINED COLLABORATION FOR RESEARCH AND EDUCATION EXCELLENCE, SAN DIEGO CAMPUS**

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Vice President Budil observed that the University's relationship with the National Laboratories was vital to sustaining an atmosphere based on freedom of inquiry, best-in-class science, and an ethos of public service. As part of the UC system, the Lawrence Berkeley National Laboratory benefitted greatly from its deep and sustained relationship with UC Berkeley, where proximity fostered a continuous flow of researchers, faculty, and students between the two sites. At Lawrence Livermore National Laboratory and Los Alamos National Laboratory (LANL), the most visible examples of this relationship were the many research collaborations among UC faculty, their students, and Laboratory researchers, often facilitated by the UC Laboratory Fees Research Program. One of Ms. Budil's office's main focuses was to expand and enhance this engagement. Research around important topics such as climate change, predicting and controlling material properties, high-performance computing, and high-density science were being pursued. Goals were to make UC presence at the National Laboratories visible and significant, to provide unique educational opportunities for UC students, to facilitate access to the UC campus community for Laboratory researchers, and to ensure that faculty and students systemwide were able to access the unique research capabilities of the Laboratories. The partnership was vital in maintaining a workforce in science, technology, engineering, and mathematics by developing the next generation of Laboratory researchers. An educational collaboration between UC San Diego and LANL, the Los Alamos – UC San Diego Engineering Institute, would be discussed by Chancellor Khosla, LANL Deputy Principal Associate Director Carol Burns, and UCSD Associate Dean George Tynan.

Chancellor Khosla expressed his strong support for the Institute, which spanned education, research, and community service. Ms. Burns noted that the Institute was part of the National Security Education Center, whose focus was recruiting, retaining, and revitalizing LANL's workforce, and was home to LANL's student and postdoctoral programs, among the largest in the Department of Energy (DOE) complex. The Engineering Institute, founded in 2003, was a LANL and UCSD Jacobs School of Engineering collaboration for the development of broad multidisciplinary engineering expertise that would be of value to LANL by creating a pipeline for recruitment of qualified workers to LANL and to other parts of the DOE. Technical focus areas decided on by both LANL and UCSD tended to be in the fields of advanced modeling, novel

sensing systems, and new information technology. About \$1.5 million in annual funding for the Institute came from indirect resources at LANL and was used for student fellowships, some faculty time, and equipment.

Ms. Burns reported that demographics indicated that LANL could lose 36 percent of its employees in the next five years, which would present an opportunity for LANL to shape its future workforce by using deliberate mechanisms to cultivate, attract, and incentivize good workers. The Engineering Institute's educational components focused on areas important to developing potential future employees. The Los Alamos Summer School offered opportunities to undergraduate students. The three-week LANL Advanced Study Institute focused on professional development for graduate students and postdoctoral fellows. The UC San Diego M.S./Ph.D. Degree Program, housed in the Jacobs School of Engineering, had LANL staff as adjunct faculty and offered a distance learning option.

The Institute's research programs were collaborative in mission-related areas driven by mutual interest of the principal investigators. These programs provided access for UC faculty and students to LANL research infrastructure, such as its linear accelerator. International collaborations were increasing. The Institute also has had a strong element of community service.

Ms. Burns posited that the key elements of this successful collaboration were strong, committed leaders, support from senior leadership at both institutions, dedicated mentoring and LANL on-site research activities, a shared vision for technical focus areas that were mutually beneficial, and an appreciation and respect for each institution's measures of success.

One indication of success was the pipeline of recent LANL hires from the Institute. In 2014, four recent alumni of the Institute were hired as permanent LANL staff. Other measures of success reflected value to UCSD, such as the visibility of research, the vibrancy of contribution to the student population, the external reputation of the Institute, and the number of courses offered with co-faculty.

Mr. Tynan discussed one element of the Institute's community service, its LANL Judicial Science School, which helped judges better assess science and technology testimony. Two week-long classes had been offered and 20 New Mexico judges had attended. LANL had received a request to provide this training for 500 judges per year and was considering extending its partnership with UCSD to offer this program.

Ms. Burns summarized that the Institute was a good model that met the needs of both UCSD and LANL. It had provided LANL with a pipeline of students for its future workforce as well as vibrant intellectual interaction with the University. The Institute provided an additional incentive for good engineering students to attend UCSD and contributed reputational credibility to the Jacobs School of Engineering. LANL was looking for additional ways to partner with the University.

Regent Ortiz Oakley encouraged such use of the University's assets to support students at all levels and to attract students of color to these fields. President Napolitano recalled her visit to LANL, noting the unique capabilities brought to the University by its affiliation with the National Laboratories. The University would look for other opportunities to expand these relationships.

The meeting adjourned at 12:50 p.m.

Attest:

Secretary and Chief of Staff