

The Regents of the University of California

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

January 20, 2010

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

Members present: Regents Marcus, Pattiz, Ruiz, Stovitz, and Varner; Ex officio members Blum and Gould; Advisory member Simmons

In attendance: Regents Bernal, De La Peña, Island, Kozberg, Lansing, Lozano, Makarechian, Nunn Gorman, Schilling, and Zettel, Regents-designate Cheng, DeFreece, and Hime, Faculty Representative Powell, Secretary and Chief of Staff Griffiths, Associate Secretary Shaw, General Counsel Robinson, Chief Compliance and Audit Officer Vacca, Executive Vice Presidents Darling and Taylor, Senior Vice President Stobo, Vice Presidents Beckwith, Duckett, and Sakaki, Chancellors Birgeneau, Block, Desmond-Hellmann, Drake, Fox, Kang, Katehi, White, and Yang, and Recording Secretary Harms

The meeting convened at 11:45 a.m. with Committee Vice Chair Varner presiding.

1. APPROVAL OF MINUTES OF PREVIOUS MEETING

Upon motion duly made and seconded, the minutes of the meeting of November 19, 2009 were approved.

2. UPDATE ON THE DEPARTMENT OF ENERGY LABORATORIES

Committee Vice Chair Varner informed the Regents that, in recent months, the White House and the Department of Energy (DOE) acknowledged research done by the National Laboratories which garnered positive media attention. In addition, the DOE recently completed its annual performance reviews of the National Laboratories, giving each a rating of “outstanding” in science and technology and extending its contracts with them. The DOE also awarded higher performance fees for the Los Alamos and Livermore National Laboratories and maintained the same fee for the Lawrence Berkeley National Laboratory.

Executive Vice President Darling remarked that in December, the Los Alamos and Livermore National Laboratory Directors met with Vice President Biden to discuss the National Laboratories’ efforts to maintain a safe, secure, and reliable nuclear stockpile even as the U.S. government seeks to reduce the size of the U.S. and Russian arsenals. During the discussion, Vice President Biden was extremely supportive of the National Laboratories; he indicated that he was deeply concerned about their level of science

funding, and their need for adequate resources to ensure that America can maintain viable nuclear deterrents and strong homeland security. Mr. Darling said that the Vice President's comments echoed remarks made by a bipartisan Congressional committee late last year that was chaired by former Defense Secretaries William Perry and James Schlesinger.

Also in December, the DOE selected six recipients for the Ernest Orlando (E.O.) Lawrence Award. This award is the nation's highest for basic energy science; each recipient is given a gold medal and a \$50,000 prize. Mr. Darling noted that two of the six award recipients were from UC National Laboratories. Wim Leemans received the award for developing the laser plasma wakefield accelerator, which recently set the world record for accelerating electron beams to more than one billion electron volts within the distance of slightly greater than one inch. Mr. Darling explained that Mr. Leemans' accomplishment represents a radical improvement over the performance of current lasers, which require a distance of two-thirds of a football field for the same result. Mr. Leemans is currently working on a ten billion electron volt accelerator, which has great promise for future physics research and, potentially, for energy. The second E.O. Lawrence Award recipient was Omar Hurricane. Mr. Darling stated that Mr. Hurricane's research was classified, but that it addressed a very difficult technical anomaly that had previously confounded all of the physics-based computer simulations about nuclear explosions.

Mr. Darling informed the Regents that longtime Lawrence Livermore National Laboratory scientist Berni Alder, who is also a UC Davis faculty member, received the nation's highest scientific honor, the National Medal of Science. Mr. Alder received the Medal for being a founder of the field of molecular dynamics and for being a pioneer in the field of computer simulation. In presenting the award, President Obama referred to Mr. Alder and his co-recipients as national icons.

The National Ignition Facility (NIF) continues to achieve all of its very challenging scientific milestones, said Mr. Darling. NIF experiments have created enough x-ray energy to heat target pellets to radiation temperatures needed to achieve ignition, which will enable researchers to study materials at temperatures and pressures equivalent to the center of the sun. At Los Alamos National Laboratory, the Dual-Axis Radiographic Hydrodynamic Test Facility (DARHT) is coming online. Mr. Darling stated that it will power x-rays that can take three-dimensional images of non-nuclear explosions that will provide data to test the predictive capability of computer codes for nuclear weapon simulations. These contributions are addressing the greatest energy and security challenges in the nation. Executive Vice President Darling explained that he would be scheduling National Laboratory visits for Regents who have not yet visited, so that they can see these developments first hand.

Committee Vice Chair Varner encouraged the Regents to visit the National Laboratories and see their research, innovation, and developments in energy and science. The Committee Vice Chair noted that he had spoken with many federal and State elected officials about the National Laboratories, and was astonished by their lack of knowledge

about the laboratories. He observed that advocacy for the National Laboratories is something that could be improved upon.

Faculty Representative Simmons remarked that the Academic Council Special Committee on Lab Issues met recently at the Lawrence Livermore National Laboratory. He thanked the individuals responsible for setting up the meeting, and stated that it was extremely beneficial to the committee. The members of the committee were greatly impressed with the work that is being done at the National Laboratories and were pleased to note that the National Laboratories' relationship with the University is important to the scientists there.

Executive Vice President Darling stated that Regent Pattiz is a very strong and able chair of both the Los Alamos National Security and the Lawrence Livermore National Security Limited Liability Corporations.

The meeting adjourned at 11:55 a.m.

Attest:

Secretary and Chief of Staff