The Regents of the University of California

COMMITTEE ON OVERSIGHT OF THE DEPARTMENT OF ENERGY LABORATORIES
May 17, 2011

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 DeFreece, De La Peña, and Varner; Ex officio members Gould and Yudof; Advisory member Simmons

In attendance: Regents Crane, Hime, Island, Johnson, Kieffer, Lansing, Lozano, Makarechian, Mireles, Ruiz, Schilling, Torlakson, and Zettel, Regents-designate Hallett and Pelliccioni, Faculty Representative Anderson, Associate Secretary Shaw, General Counsel Robinson, Chief Investment Officer Berggren, Provost Pitts, Executive Vice Presidents Brostrom and Taylor, Senior Vice Presidents Dooley and Stobo, Vice Presidents Beckwith, Darling, Duckett, Lenz, and Sakaki, Chancellors Birgeneau, Block, Blumenthal, Drake, Kang, Katehi, White, and Yang, Laboratory Director Anastasio, and Recording Secretary McCarthy

The meeting convened at 1:35 p.m. with Committee Vice Chair De La Peña presiding.

1. **APPROVAL OF MINUTES OF PREVIOUS MEETING**

Committee Vice Chair De La Peña stated that Committee Chair Pattiz had requested an amendment to the minutes of the meeting of January 20, 2011. Associate Secretary Shaw read the proposed amendment, on page five of the pending minutes. "In addition, the nation must be assured that its nuclear stockpile would remain safe and secure; therefore a significant amount of funding will be devoted to extending the life of the existing nuclear weapons."

Upon motion duly made and seconded, the minutes of the meeting of January 20, 2011 were approved as amended, and the minutes of the joint meeting of the Committees on Governance and Oversight of the Department of Energy Laboratories of January 20, 2011 were approved.

2. **UPDATE ON THE DEPARTMENT OF ENERGY LABORATORIES**

Regent Varner updated the Committee on important events at the National Laboratories. Los Alamos National Laboratory (LANL) Director Anastasio has announced that he wishes to step down as of June 2011. The search for his successor is progressing and an announcement is expected by that time.

In the prior month, Lawrence Livermore National Laboratory (LLNL) Director Miller announced his intention to step down as Director as of October 1, 2011. The Office of Laboratory Management at the Office of the President has asked him to stay on as Director until the end of the current year in order to enable an orderly transition at both LANL and LLNL. A search for a LLNL director will begin when a new LANL director has been named.

Regent Varner stated that Mr. Miller has provided outstanding service to the nation, to LLNL, and to the University, having served in increasingly responsible positions during his 39 years at LLNL, with the last five years as Director under the new LLC management. Mr. Miller attacked a variety of scientific and management challenges in the interest of national security. He is particularly known for his deep personal commitment to employee safety. The Board will miss his integrity and dedication to the Laboratory and the nation. Regent Varner noted that replacing both Mr. Anastasio and Mr. Miller is a formidable undertaking, as the University has trusted and benefited from their exceptional leadership of LANL and LLNL for many years.

Regent Varner commented on the congressionally mandated National Academy of Sciences study examining the quality of science and engineering at the National Security Laboratories, and the relationship between that quality and the contracts the Department of Energy (DOE) established after the last contract competitions. A study committee has met with scientists and engineers at the National Security Laboratories to discuss changes brought about under the new contracts. The study committee will now work on a report of its findings.

Turning to the Lawrence Berkeley National Laboratory (LBNL), Regent Varner reported that the University received over 20 responses to its call for proposals for possible sites for a second LBNL campus. Six sites, located in the East Bay from Oakland to Richmond, were selected for further consideration in this competitive process, which will include upcoming site inspections, due diligence, and negotiations. A decision on the preferred site would likely occur in late November. Director Alivisatos would provide a detailed briefing on the selection process and the six sites at a future meeting.

Regent Varner emphasized the value of the National Laboratories in providing both science vital to national security, and career opportunities in science and engineering for UC students. He noted Congressional support for the work of the National Laboratories and urged the Regents to visit.

Mr. Anastasio thanked the Regents and the University for the support given to the National Laboratories for many decades; this was particularly important during the past five to ten years when LANL went through very difficult times.

Mr. Anastasio described the challenges LANL faced during the past five years. The Laboratory's credibility was questioned by many because of safety, security, and business operation challenges that had received much publicity. When the contract and management structure were changed in June 2006, costs at LANL immediately increased

by $150 million a year; significant infrastructure recapitalization was required. The financial crisis of 2008 left the Laboratory with an underfunded defined benefit pension liability. Over the past five years, the stability and leadership provided by the University and the other LLC partners have brought LANL through these turbulent times and have restored confidence in the Laboratory.

Mr. Anastasio called attention to some of the results of the unique science and engineering capabilities that LANL provides the nation. In the past five years, LANL brought forth the Road Runner, which was the first petaflop computer in the world, and the Dual-Axis Radiographic Hydrodynamic Test (DARHT) facility, which enables the nation to have confidence in its nuclear stockpile. LANL is a key partner in the National Alliance for Advanced Biofuels and Bioproducts, working on the genomics of algae and the engineering of extraction of lipids to make a cost-effective biofuel.

For the first time, LANL's annual direct funding for science, energy, and global security exceeded $700 million. In the field of global security, LANL works on nuclear nonproliferation, counterterrorism, support for homeland security, and detection technology supporting President Obama's commitment to control the movement of nuclear material and the International Atomic Energy Agency's (IAEA) inspections around the world. Mr. Anastasio stated that LANL is also able to support the efforts of the DOE in response to crises such as the 2010 oil spill in the Gulf of Mexico, and the recent earthquake and tsunami in Japan.

LANL's scientists have also led development of a vaccine, which is beginning medical trials, for the human immunodeficiency virus (HIV) by predicting how the virus evolves from its early infection in a person. Efforts to develop a vaccine have previously been hampered by the rapid evolution of the HIV virus. By predicting how the virus would evolve, scientists can create a mosaic vaccine that would cover a multitude of evolutionary paths. A LANL scientist also led the dating of soil layers in UC Berkeley's discovery of the oldest humanoid skeleton.

LANL's computing excellence has been applied to a broad array of scientific challenges, including modeling of sea ice and circulation of the oceans, which are two of the four major elements of global climate models. The Laboratory's advancements in computing have enabled creation of a three-dimensional model of the ocean, including all its rivers and accurate land masses. The ocean is the largest biomass on earth, and LANL's computing power enables tracking of chemical and biological aspects of carbon dioxide and oxygen formation.

Mr. Anastasio concluded by stating that the vitality of science at LANL is essential and that attention must be paid to the health of the Laboratory's scientific endeavors for the long term. While the exact nature of future challenges may be unknown, there is no doubt that high-level science will be necessary. LANL's collaboration with the University of California is a crucial element of the quality of the Laboratory's science, including the UC students who come to LANL for part of their education and the Laboratory's collaborative research with UC faculty. In the past fiscal year to date, joint proposals with

LANL scientists and UC faculty resulted in more than $25 million in research funding to UC campuses.

Regent De La Peña thanked Mr. Anastasio and wished him all the best in his future endeavors.

The meeting adjourned at 1:50 p.m.

Attest:

Associate Secretary