

News about the Berkeley, Livermore and Los Alamos national laboratories, which are managed by the University of California for the U.S. Department of Energy

RESEARCH AND PUBLIC SERVICE NEWS

Guarding the homefront:

Homeland security was the focus of a workshop in New Mexico co-sponsored by the Los Alamos lab for first responders, and state and local officials. Los Alamos Interim Director George P. "Pete" Nanos gave welcoming remarks.

The goal of the workshop, also sponsored by Sandia National Laboratories, was to provide a forum for initial discussions of current homeland security concerns facing the State of New Mexico and local areas. Topics included threats, awareness, preparedness, response, needs identification and media coordination.

"We want to foster the development of a Southwest regional community to effectively address terrorism concerns and to successfully participate in federal homeland security programs," said Ron Dolin, assistant director of the Los Alamos lab's Center for Homeland Security and workshop coordinator.

No more blackouts: Large-scale power blackouts could be a thing of the past, owing in part to the work of Berkeley lab scientists. They are helping to develop a new approach to power generation in which a cluster of small, on-site generators serves office buildings, industrial parks, and homes.

Called a microgrid, the system could help shoulder the nation's growing thirst for electricity — estimated to jump by almost 400 gigawatts by 2025 — without overburdening aging transmission lines or building the 1,000 new power plants required to meet this demand.

Instead of relying solely on large power plants, a portion of the nation's electricity needs could be met by small generators such as ordinary reciprocating engines, microturbines, fuel cells, and photovoltaic systems. A small network of these generators,

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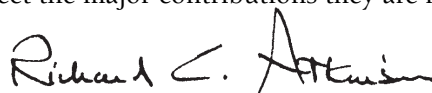
Message from the president

This is the third issue of "LabUPDATE," a periodic report from the University of California to inform you of news about the three national laboratories UC manages for the U.S. Department of Energy. I hope you are finding these reports useful.

In legislative hearings in Sacramento and Washington, D.C., this week, UC representatives reiterated our unwavering commitment to managing the laboratories effectively, with particular emphasis on rectifying all problems in Los Alamos business and administrative practices and preventing their reoccurrence. We continue to make progress in this effort and appreciate the support being expressed from many quarters.

New Mexico Governor Bill Richardson recently endorsed UC's management of the Los Alamos laboratory as well as the leadership of Interim Director Pete Nanos. Support also has come from a number of municipalities, organizations and individuals in New Mexico, including many laboratory employees and retirees.

At all three UC-managed national laboratories, our scientists, engineers, technicians, and support personnel continue to produce work of the highest quality in the interest of science and national security. I greatly appreciate their resolve and commitment, and I deeply respect the major contributions they are making to our nation and world.



Richard C. Atkinson
President



MANAGEMENT NEWS

UC describes lab reforms, affirms commitment at state and federal legislative hearings

In state and federal hearings this week, UC officials recounted the series of reforms in place to rectify business and administrative practices at the Los Alamos lab and reiterated UC's commitment to effective management of the Los Alamos, Livermore and Berkeley national labs.

UC President Richard C. Atkinson addressed a California State Senate hearing in Sacramento attended by New Mexico Senators Manny Aragon and Bill Payne. Atkinson said that UC is committed to taking all necessary steps to restore the confidence of the Legislature, the Congress, the Department of Energy, and the public in UC's management of the Los Alamos lab. Atkinson summarized the many management changes UC has made at Los Alamos, which he described as a "vital national resource."

Atkinson also emphasized the quality of the scientific and technical work being done at the three UC-managed labs — which he said is particularly important now given current world events — and the integrity and dedication of the labs' employees.

"At Los Alamos, we have a 60-year history of outstanding science and successful partnership with the federal government," Atkinson said. "At all three laboratories,

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each of which typically produce no more than 500 kilowatts, would provide reliable power to anything from a postal sorting facility to a neighborhood, according to research by an energy consortium centered at the Berkeley lab.

Protecting structures: Livermore lab engineers are using advanced computing simulations to show what could happen to buildings, dams and other possible terrorist targets if attacked by conventional explosives.

Some of the technologies originally developed within Livermore's Defense Programs division have already found wide acceptance in non-defense uses, such as for crash safety simulation in the auto industry. These capabilities, including computer simulations, can also be deployed to examine infrastructure vulnerability and explore design alternatives.

Livermore engineers discussed and displayed their work recently at the annual meeting of the American Association for the Advancement of Science.

Supercomputer at work: The Berkeley lab's National Energy Research Scientific Computing (NERSC) Center, funded by the Department of Energy's Office of Science, has put its IBM supercomputer into service, providing researchers across the country with the most powerful computer for unclassified research in the United States.

The IBM supercomputer, which comprises 6,656 processors and operates at 10 teraflops per second (10 trillion calculations per second), entered production a month ahead of schedule, meaning that the system will provide up to 4 million more processor hours of computing time in the current fiscal year. The NERSC Center serves more than 2,000 researchers at national labs and universities across the country.

Los Alamos welcomes students: About 150 teenage girls from northern and central New Mexico came to Los Alamos for a day as participants in the national Expanding Your Horizons program. They joined in small, interactive workshops geared toward enhancing math and science education presented by Los Alamos lab scientists, engineers and professionals. Subjects ranged from computing to chemistry, and forestry to medicine.

Teachers also took part in workshops on new techniques for teaching science to young women. The New Mexico Network for Women in Science and Los Alamos Women in Science co-sponsored the event.

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University of California: www.universityofcalifornia.edu
 U.S. Department of Energy: www.energy.gov
 National Nuclear Security Administration: www.nnsa.doe.gov
 Lawrence Berkeley National Laboratory: www.lbl.gov
 Lawrence Livermore National Laboratory: www.llnl.gov
 Los Alamos National Laboratory: www.lanl.gov

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we have thousands of honest and hardworking scientists, engineers, technicians, and support personnel who are making a major contribution to our nation's security."

Among the others testifying were UC Senior Vice President Bruce Darling, the three lab directors, UC San Diego Chancellor Robert Dynes, and several faculty and staff members from the labs and UC campuses.

The lab directors pointed to contributions each facility and their staffs are making to the cause of homeland security and stressed the importance of the relationship between the labs and UC. Exhibits outside the hearing room showcased aspects of the labs' work.

In Washington D.C., Darling represented UC for the second time before the House Energy and Commerce Committee's Subcommittee on Oversight and Investigations. He told the committee that settlement agreements had been reached with three Los Alamos managers that will result in their departure from the lab. Darling said that other personnel actions are forthcoming at Los Alamos.

In response to committee members' questions, Darling pledged to pursue any new information about concerns at the labs and expressed support for Interim Director George P. "Pete" Nanos' efforts to bring about a more open and trusting environment at Los Alamos.

"I want to emphasize, as I did two weeks ago, that the university has not and will not let its unwavering focus on the important business and management issues that we are discussing today distract the laboratory from fulfilling its mission to the nation," Darling told committee members.

"The work being done at Los Alamos today is as important as at any time in the 60 years that the university has had the privilege and responsibility of managing the laboratory. We remain honored to oversee this important work on behalf of the nation."

More information on laboratory management issues is available at: <http://www.universityofcalifornia.edu/news/losalamos/welcome.html>

Gov. Richardson endorses UC management

New Mexico Gov. Bill Richardson has publicly endorsed UC management of the Los Alamos lab, describing the 60-year partnership with the federal government as "extraordinarily successful."

Richardson said in a Santa Fe news conference that lab and UC officials "have seized the moment and taken the aggressive managerial steps to change the culture at the lab" and "identify and fix all of the problems" at Los Alamos.

"But those problems should not distract us from focusing on the fact that the key reason for the lab's superb capability in science and technology has been its ability to attract and retain an extremely capable scientific workforce at Los Alamos," the governor added. "This has in great part been due to the lab's association with the University of California...Our country now needs these skills to deal with the new challenges to our homeland's security perhaps more than at any time since the completion of the Manhattan Project."

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