

the laboratory connection

volume 2 number 4

april/may 2001

your community's link
to information, opportunities, and people
at Los Alamos National Laboratory

word
from the Community Relations Office

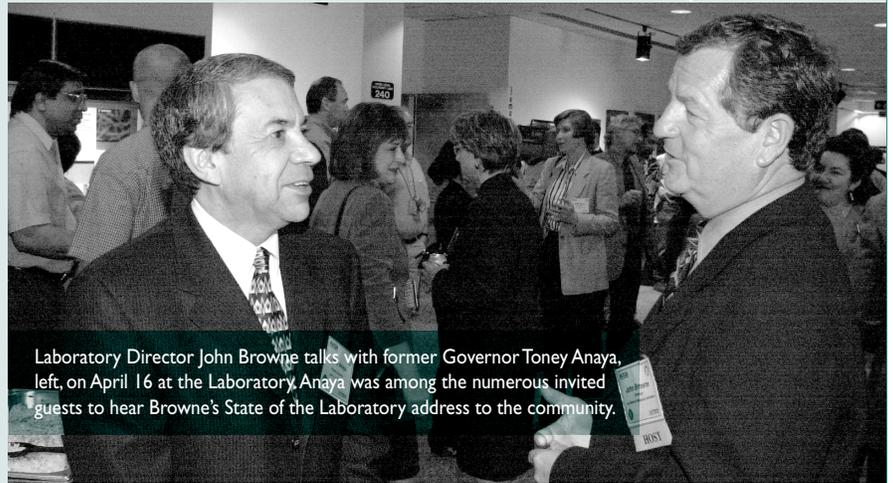
Motorists who use NM 30 should be aware of increased heavy truck traffic for the next four months.

We were recently informed by Santa Clara Pueblo officials that heavy trucks will be using the busy, two-lane highway that intersects with NM 502 at its southern end and Española on its northern edge to remove trees from pueblo property that burned in last spring's fire. The logging trucks will use NM 30 from 6 a.m. to 6:30 p.m., according to pueblo officials.

Currently there are about 10 loads a day of trees that will be logged out; this could possibly increase to 30 loads per day, according to pueblo officials.

We kindly ask that commuters, including Laboratory employees, drive with caution and courtesy. Numerous traffic accidents and several deaths along both NM 30 and NM 502 prompted officials from both San Ildefonso and Santa Clara pueblos to ask the Laboratory for help in reminding commuters to drive with caution and courtesy while commuting.

For more information, contact Jerome Jenkins of Santa Clara Pueblo at 753-7326, ext. 297, or Barbara Grimes in our Community Relations Office at 665-5121.



Laboratory Director John Browne talks with former Governor Toney Anaya, left, on April 16 at the Laboratory. Anaya was among the numerous invited guests to hear Browne's State of the Laboratory address to the community.

Lab Has Met, Will Face New Challenges ... But, 'On the way back'

Los Alamos National Laboratory has faced numerous challenges over the last year yet has continued to perform admirably in support of the nation. With the political landscape changing in Washington, the Lab will need to continue focusing on meeting its goals and adjusting to new needs. Also, recruitment and retention of outstanding people will be a significant area of focus for the Lab in the next several years.

Those were some of the messages in Laboratory Director John Browne's State of the Laboratory address to workers on March 7 and then to regional community leaders on April 16. In the talks, which included short question-and-answer sessions, Browne talked about the Lab's new mission statement of applying the best science and technology to make the world a safer and better place. He also suggested caution in prematurely jumping to conclusions regarding the current FY02 budget.

"In spite of all the activities and challenges that faced the Lab ... a lot of technical work was accomplished and that's what we're all about," Browne said. Browne delivered his fourth State of the Laboratory

continued on page 3

Star Trek and the Lab 'Salad'

Lessons can be learned from the original Star Trek television series and applied to everyday life in America and at the Lab, according to civil rights leader Daphne Kwok. She spoke in early March at the Lab on the importance of workplace diversity in a lecture called "A Salad, a Melting Pot, a Mosaic, or a Tapestry?" Kwok is working to improve the way of life for all employees at the national laboratories as an advisor to the Secretary of Energy. She also is an executive director for the Organization of Chinese Americans Inc., a nonprofit civil rights organization representing 10,000 members.



Civil rights leader Daphne Kwok speaks to Lab employees in March.

Kwok didn't see the significance of Gene Roddenberry's diverse crew until she was in college, when she heard actor George Takei talk about Roddenberry's intention for Star Trek. "Gene Roddenberry, the creator of Star Trek, was a man ahead of his time," she said. "His vision and his creation of the popular show envisioned diversity at its best. The Enterprise was a metaphor for this world. Where else would you find in one work place: Uhuru, an African American woman in charge of communications; Chekov, a Russian, as the navigator; Sulu, an Asian, as the helmsman; and of course Mr. Spock?"

Kwok believes there are lessons to be learned from Star Trek, which can be related to the United States and the Lab. "In so many ways the United States is an awesome superhero. We have advanced in medicine, science, technology and other areas. But in those other areas, we have

not kept pace with the superhero image that we project," she said. "Those areas are in the area of race relations, multicultural affairs, and diversity in the workplace issues."

Kwok classified the Lab as a salad. Referring to her title, she said all four images have been used to describe America as a salad, melting pot, mosaic and a tapestry. She said a salad is made of wonderful individual ingredients, but each item eaten on its own would be boring. "Tossed together so that each item still can be recognized as individual items but can be combined with others creates an enticing, colorful, beautiful, visually appetizing, and exciting gourmet salad," she said. Kwok said that the past two years at the Lab was an opportunity to embrace the best that its diverse workforce brings to advancing this nation's scientific knowledge.

"At Los Alamos and the other labs, I have heard that individuals were not pleased that the Asian and Asian Pacific American

community were receiving the spotlight and having their issues addressed at the expense of the other communities. This has led to unnecessary tension," she said. "This is an opportunity to make systematic changes for all lab employees. Policies to improve the environment for one community should be resulting in policy changes for everyone here. We should not be pitting one community against another community for the stakes are too high as a national lab as well as for this nation."

Kwok also spoke at a Laboratory Information Meeting of senior managers, and praised Laboratory Director John Browne and senior managers for being courageous and for reinforcing diversity initiatives. She also suggested ways on how to better reach Asian communities through the news media, Internet, and at recruiting fairs.



Pueblo Cooperative Agreement Meeting. Laboratory Director John Browne, right, speaks with Santa Clara Pueblo Gov. Denny Gutierrez during a meeting in late March at the Santa Clara tribal administration building. Browne and other Lab and tribal officials from Cochiti, Santa Clara, Jemez, and San Ildefonso met to discuss the cooperative agreement between the University of California/Los Alamos National Laboratory, which runs the Lab for the Department of Energy, and the four nearby pueblos. The cooperative agreement allows for interactions between the Lab and the pueblos on issues of mutual concern.

New Challenges
continued from page 1

address to employees, and his first address to the community. "We serve the nation. I think that is a distinguishing characteristic for Los Alamos National Laboratory," Browne said of the Lab's vision statement. "We are here because we believe in public service ... we believe very strongly in the mission."

Browne said everything Lab workers do speaks to the vision statement: "If you think about everything this Lab does and wants to do in the future, we do it because ... [we] want to make the world a better and safer place." Browne said he wants the Laboratory to be the National Nuclear Security Administration lab of choice. The Lab can stake that claim, he said, by being a "unified, customer-focused lab with outstanding performance in all areas." Browne said the Lab has to have the best workers to meet its customer needs and Lab goals and missions. "If we don't have the best people and they're not motivated, we're not going to succeed."

Speaking to the April community audience, Browne said the talk provided an opportunity to open a dialogue with community leaders on broad issues, update the community on activities at the Lab, and receive input from leaders on their concerns. Browne also used the talk to thank communities for supporting the Laboratory.

Browne applauded the Lab's efforts in managing construction of the new Strategic Computing Complex. But he said there also are stories about projects the Lab has failed to manage properly. And he said the way the weapons labs manage projects will be watched closely by Congress—project management oversight also is a new Appendix O measure in the University of California contract.



Some 120 elected leaders, officials, and community representatives attended Laboratory Director John Browne's State of the Lab address April 16. Shown from left to right are Sen. Richard Romero, D-Bernalillo, Rep. Nick Salazar, D-Mora, Rio Arriba, San Miguel, Santa Fe and Taos, David Schmidt, director of the New Mexico Council on Crime and Delinquency and Rick Ulibarri of the Lab's Government Relations Office.

Speaking to the administration's proposed FY02 budget, Browne said that cuts might hurt in recruitment but that it's too early to tell what the outcome might be. "Even in a worst case scenario, I don't expect lay-offs next year," he said. "It's always like this with a new administration," and he suggested a cautioned approach as "the administration gets its priorities aligned with what the Lab can do."

Browne closed by thanking Lab workers and local communities for supporting the Lab. "And I wanted to thank you personally for your support of me. We have a great work force, a very resilient work force and we proved it in the last couple of years. This is a great Laboratory and I just wanted to tell you that I'm very proud to be your director at this point in its history."

"We're on our way back," Browne noted to the community address. He asked the community to help shape the Lab's future by offering feedback on what types of forums might be most effective in the exchange of information, including whether or not to continue this first State of the Laboratory address in a regional community venue.

Plutonium Waste Reduction

Power Source Technology of the Nuclear Materials Technology Division has developed an improved process to isolate plutonium oxide from scrapped fuel. The innovation cut the recovery waste stream by more than 75 percent, and is helping the Lab move closer to meeting the Department of Energy's 2005 pollution prevention goals.

Plutonium-238-oxide is used in the manufacture of general-purpose heat sources and lightweight radioisotope heat units for NASA's deep space missions. Before it can be used, the plutonium oxide from scrapped fuel must be purified. Any unnecessary elements or other impurities in the scrap fuel add weight without adding heat and might also react adversely with heat-source components.

In 1997, Power Source Technology team members Gerald Allethausen, Jason Brock, Amy Ecclesine, Paul Moniz, Jonetta Nixon, Maria Pansoy-Hjelvik, Kevin Ramsey, Mary Ann Reimus, Mary Remerowski, and Gary Silver began working on a bench top model of a modified purification process. The result of their effort is a modified process that has been demonstrated to successfully purify the majority of the plutonium oxide feed without dependence on the additional ion exchange step. By using the optimized unit operation alone, processing of the entire process stream generated through the full-scale line at the Lab will result in only 500 liters of mixed low-level waste a year.

For its work, the team earned a Pollution Prevention Award for the year 2000 from the Lab's Environmental Stewardship Office. These awards are given to individuals and teams that have demonstrated a commitment to the environment by implementing plans to reduce waste in the workplace.

Math and Science Academy Appreciation



Chama Middle School student Savannah Torrez describes the project she and her classmates are working on at the Northern New Mexico Math and Science Academy Appreciation Night in late-March at Española Middle School.

Individuals and organizations who helped get the new Northern New Mexico Math and Science Academy organized and operating were recognized at an appreciation night in late March in Española. Community leaders, educators, local and state government officials, private industry representatives, and a number of individuals from several Lab organizations who have contributed personnel, equipment, furniture and office space, and financial assistance to the Math and Science Academy were publicly recognized at the event.

The Math and Science Academy was piloted last fall in three middle schools in Española, Chama, and Mora. The academy is designed to provide students with sound preparation in math, science and technology. "The bottom line is the

students. They're the ones who will receive the benefits of this training, the science and math and communication arts," said Tony Gallegos, the recently-retired coordinator of the Math and Science Academy. "We want to thank those individuals, companies, and organizations that have joined together as partners to make this happen."

"The academy is brand new for Northern New Mexico, and it's really directed at making systemic changes in the way students are trained in math and the sciences. Its goal is to establish an inquiry based curriculum in which students have hands on experience," said Gallegos. "It's a modernization of teaching and seeing if we can make students in northern New Mexico competitive. We're trying to get more students interested in these areas."

Math and Science Academy Appreciation Night also was a chance for organizations to network and provide information about their products or services. For more information, contact the Lab's Science and Technology Based Program Office at (505) 665-8899.

NNSA Announces Organizational Plan

National Nuclear Security Administration (NNSA) Administrator John Gordon announced his organizational plan for the NNSA in mid-March. Gordon said his organizational plan is intended to realign NNSA's business structure to create a better focus on the administration's mission, accomplishments, and performance. He said he wants to emphasize teamwork, cooperation, long-range planning, and elimination of stovepipes.

Under the plan there are two new senior managers, an associate administrator for facilities and operations and an associate administrator for management and administration. These positions complement the three existing deputy administrators, for defense programs, nonproliferation and national security, and naval reactors, and all these positions report to Gordon.



Gordon called for a new attitude of cooperation and teamwork throughout the NNSA. "This will work if we have the right people involved and emphasize creativity and open communication," Gordon said. "I intend to seek out and reward behavior that emphasizes openness, cooperation, and working in a corporate manner."

Los Alamos Research Park Opens



Senator Pete Domenici provided the keynote speech before a standing-room-only crowd at the late-March dedication of the Los Alamos Research Park. Behind Domenici are, from left to right, Sharon Stover, chair of the Los Alamos County Council; Wayne Kennedy, senior associate to the University of California president; and Kevin Holsapple, executive director of the Los Alamos Commerce and Development Corp.

The first of five planned buildings in the Los Alamos Research Park was dedicated at a ceremony in late March. The dedication by the Los Alamos Commerce and Development Corp. comes less than one year after the start of construction. The events began with an invitation-only roundtable breakfast for CEO's of Research Park companies. The breakfast, which featured a discussion focused on growing and expanding businesses in the Northern New Mexico region, was hosted by United States Senator Jeff Bingaman, D-NM.

Construction on the first Research Park building began on March 29, 2000, and, in spite of delays during the Cerro Grande Fire, was completed under budget and ahead of schedule. Initially there will be approximately 20 Laboratory employees from various divisions working in the Research Park space along with their industrial cohorts from Compaq and Motorola Labs. Construction on the next phase of the Research Park will begin as the need for additional space develops—perhaps as early as next year.

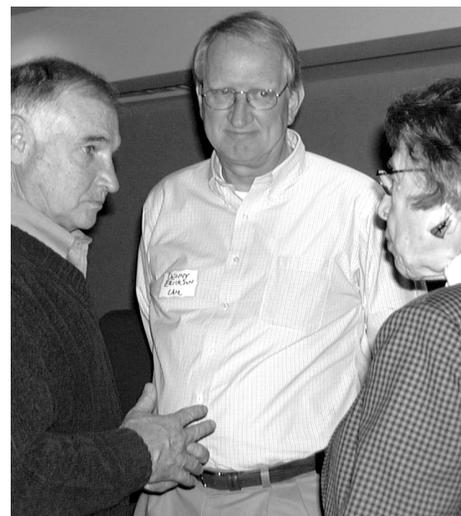
UC Awards Subcontracts for Industry Expertise

The University of California Office of the President has awarded two subcontracts for expert consulting to help the University improve operational effectiveness at the Los Alamos and Lawrence Livermore National Laboratories in safeguards and security and project management for large-scale scientific efforts. The companies selected are Aegis Research Corporation, of Falls Church, Va., to help in safeguards and security, and Parsons Infrastructure and Technology Group, of Pasadena, California (a division of Parsons Corporation) to help in project management.

The University awarded the subcontracts in partial fulfillment of its obligations to the Department of Energy/National Nuclear Security Administration under the recently modified contracts for management and operation of those laboratories. The contracts are to be carried out over the next 18 months at an estimated cost of approximately \$10 million.

Commenting on the subcontract award, C. Judson King, University Provost and Senior Vice President, said: "The University is pleased to have retained the services of two highly qualified companies to provide professional expertise as we carry out our contracts to operate the national security laboratories at Livermore and Los Alamos. Aegis Research is a national leader in security, and Parsons is similarly a national leader in project management. We expect their efforts to add significantly to the University's efforts to strengthen operations as we continue our tradition, through DOE/NNSA, of offering the nation the best in scientific research."

General John Gordon, Administrator of NNSA, said: "I am pleased to see the University of California take these proactive steps and meet the intent of the contract as the National Nuclear Security Administration negotiated it with them. These steps by U.C. to have a mechanism to look at ways they can improve security and project management are appropriate. We look forward to improved project management and our working relationships with the national laboratories."



Independent Assessment of Health Risks From Cerro Grande Fire Planned. Independent Auditor John Till, left, of Risk Assessment Corp. of Neeses, S.C., and Dennis Erickson, director of the Laboratory's Environment, Safety, and Health Division listen to Los Alamos County Councillor Fran Berting of the Northern New Mexico Citizens' Advisory Board after Till outlined a strategy for assessing potential health risks from the Cerro Grande Fire during a meeting in late March at the Cities of Gold Hotel in Pojoaque. The New Mexico Environment Department is funding an independent assessment of health risks potentially created by last May's fire, which charred nearly 50,000 acres of land. Laboratory Director John Browne lauded the state agency's decision to contract with Till's company. Risk Assessment Corp. has performed two independent audits of Laboratory radioactive air emissions.

New "Buy Northern" Web Page

As part of a broader commitment by the Lab to improve the economy of Northern New Mexico, the Small Business Program Office (SBO) recently unveiled a new World Wide Web page. The "Buy Northern" web page has information about contract opportunities for small businesses in the area interested in doing business with the Lab. It also has information for Lab workers who make purchases for their organization.

The new web site—<http://buynorthern.lanl.gov>—contains information on training opportunities and workshops for small business owners conducted by SBO, updated information on the Northern New Mexico Supplier Alliance (NNMSA). The NNMSA was formed in 1997 to increase business opportunities for the suppliers in Santa Fe, Rio Arriba and Los Alamos counties, with the objective of meeting a portion of the Lab's procurement and outsourcing needs. A calendar of Small Business Administration events in New Mexico and the number of "hits" to the site are also on the web site. There's also an electronic mail address, which SBO uses to communicate with small business owners and to send out messages to local businesses in a seven-county region about opportunities to provide goods or services to the Lab.

Goods and services range from computers and office equipment to furniture, machine shop fabrications, office supplies and furniture, and support services performed for the Lab by Johnson Controls Northern New Mexico and Protection Technology Los Alamos, the Lab's two largest subcontract companies.

The new web site was developed in part through an agreement between the Lab and small business owners and operators in Santa Fe, Los Alamos, and Rio Arriba

counties to increase economic development opportunities. As part of the Lab's Appendix J contract provisions, the Lab is mandated to work closely with businesses in the region to increase buying opportunities at the Lab and promote regional economic development. The new web site is providing more, updated information for local businesses as well as helping Lab procurement officers identify those businesses out there who have goods or services the Lab can use.

In addition to the "Buy Northern" web page, SBO also publishes a monthly,

hardcopy "Buy Northern" newsletter for businesses that don't have Internet access. It includes much of the same information, in a condensed version, that is found on the web page. It also includes a short news-style feature story on a local business and the Lab procurement officers who worked closely with that small business owner. More information about SBO is available by calling 667-4410, 1-800-472-9861, or writing to sbo@lanl.gov by electronic mail.

WIPP Shipments Resume



In this file photo, a truck containing TRUPACT-II containers sits ready to head out to the Waste Isolation Pilot Project near Carlsbad.

Shipments of transuranic waste from the Laboratory to the Waste Isolation Pilot Plant in southeast New Mexico resumed in late April. The shipments from the Laboratory's Technical Area 54, headed towards Carlsbad for deposit in salt formations almost a half-mile underground, resumed more than two years after the first WIPP shipments from the Lab were made March 25, 1999. A total of 17 shipments of radioactive waste were moved to WIPP until Los Alamos's shipments were halted Nov. 27, 1999.

The initial shipments were all composed of nonmixed transuranic waste—waste that has no Resource Conservation and Recovery Act hazardous components such as heavy metals or spent solvents—because at that time WIPP was permitted to receive nonmixed transuranic waste only. Expensive sampling and chemical analyses were required to prove

that these shipments were composed of only nonmixed waste. In November 1999, WIPP obtained a RCRA Part B permit from the New Mexico Environment Department allowing it to receive and dispose of mixed waste as well.

The Lab has spent the past year restructuring its transuranic waste characterization processes and certification procedures to meet the additional requirements of the RCRA Part B permit while maintaining compliance with all Department of Transportation shipping regulations and Environmental Protection Agency radiological requirements. The Lab demonstrated full compliance with all regulatory requirements during audits by EPA and NMED last August and September. The Lab's certification currently applies only to mixed transuranic debris waste, such as rags, discarded protective clothing, metal scrap and plastic.

There are more than 25,000 drums of transuranic waste stored at TA-54 that have been generated over the past 50 years. More than 15,000 of these drums are of the debris type. The late-April shipments were the first of many planned mixed transuranic waste shipments from the Laboratory to WIPP.

“Fire Book” Arrives

A positive sign of the community and Lab recovery from last spring's Cerro Grande Fire is the publishing and arrival of what has become known informally as “the fire book.” “Cerro Grande: Canyons of Fire, Spirit of Community” documents the fire through the eyes of many people who were most affected, from local families and evacuees to firefighters, emergency officials and volunteers. Proceeds from sales of the book will establish a scholarship fund for children of families who lost homes in the fire. Books were distributed to R Books, Otowi Station Bookstore, Los Alamos National Bank and the Los Alamos Historical Society Museum.

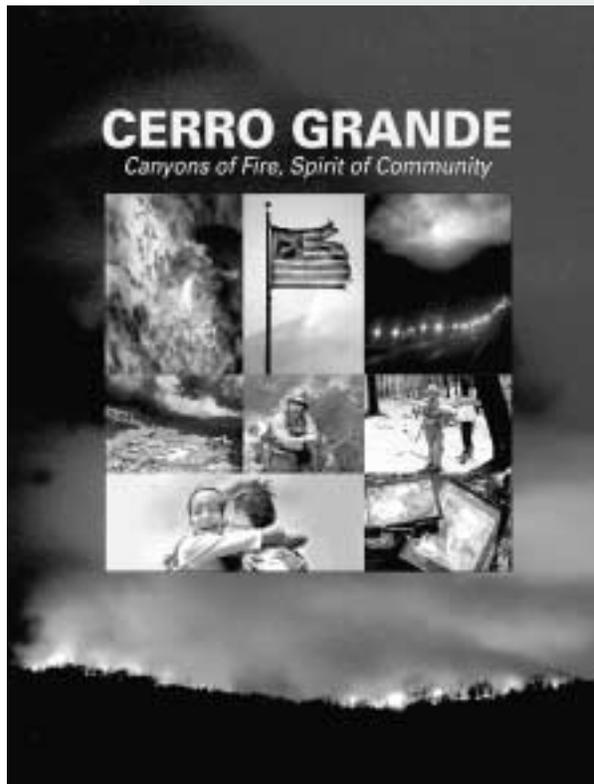
The 200-page commemorative book contains more than 400 color photos taken during the fire and interviews with dozens of the people most affected by the largest wildfire in New Mexico history, from local evacuees to firefighters, emergency officials, and volunteers. More than 100 photos in the book were donated by the citizens of Los Alamos and northern New Mexico.

The Lab partnered with Los Alamos National Bank on printing the book. Books are priced at \$28 each, or \$24 each for sales of five or more. The Los Alamos bookstores and the Los Alamos Historical Society Museum agreed to sell the fire books for a minimal handling fee, included in this price. Books are also available at all branches of Los Alamos National Bank.

The Los Alamos National

Laboratory Foundation, a public, nonprofit corporation that funds educational and public service activities, will administer the Cerro Grande Scholarship Fund created from the book's net proceeds. The books will establish college and vocational scholarships for approximately 275 children of fire survivors over the next two decades. Scholarship awards are expected to begin in September.

A Laboratory team of writer/editors, photography and printing specialists, and designers and artists developed the book, which contains a short history of the Pajarito Plateau, a detailed timeline of events during the fire, and a section on fire recovery and personal healing in the past year.



Energy Secretary
continued from page 8



Department of Energy Secretary Spencer Abraham, center, arrived at Los Alamos County Airport with National Nuclear Security Administration director John Gordon, left, and Laboratory Director John Browne.

on how to work in a glove box and on the Lab's plutonium pit fabrication program. He also was trained and performed a step in the pit fabrication and certification process.

And after his all-employee talk, Abraham toured offices of Applied Physics Division, where he was given a nuclear weapons program overview, including information on the Accelerated Strategic Computing Initiative, a major component of DOE's Stockpile Stewardship program.

Later, Abraham told news media reporters and photographers he is working closely with NNSA Administrator John Gordon to identify challenges the DOE faces and how it can work in concert with the National Security Council, Department of Defense, and other agencies. One of those challenges, he said, is long-range strategic decisions as to America's nuclear forces—the nation's stockpile of nuclear weapons in relation to nonproliferation and counter-proliferation programs.

He also spoke briefly about DOE's 2002 fiscal year budget, telling reporters that he is “taking a pause” to review all facets of DOE programs to determine the department's future budget priorities.

Energy Secretary Calls National Labs "Crown Jewels" during First Visit to Los Alamos

Department of Energy Secretary Spencer Abraham's first visit to the Laboratory in late April provided several opportunities for Lab workers to meet the new DOE chief. Abraham, who was named DOE secretary by President Bush earlier this year, toured several Lab facilities, spoke to employees in the Administration Building Auditorium and at Technical Area 55, met briefly with news media representatives, and later, community leaders at DOE's Los Alamos Area Office. Abraham said he came to the Lab to learn more about projects and programs and the Lab's national security and civilian missions. Calling Los Alamos and the national lab's "crown jewels," he said the nation is proud of the Lab's history and of the work that continues today.

"What the trip today has so far done is reinforce my pride in and confidence in the people who work in our labs. These are, as I said, the crown jewels, in terms of American science," he said. "I wanted to come here early to just reinforce my already-held opinion of the quality of work done here and to try to assess some of the needs so I could be a more effective participant in the [national security] reviews."

Before talking to employees in the Administration Building Auditorium, Abraham had lunch with employees at TA-55. He later was given a brief overview and demonstration

continued on page 7



During a half-day visit to the Lab, his first since becoming energy secretary, Energy Secretary Spencer Abraham toured Technical Area 55 where he was given a quick lesson in the operation of a glove box, shown above.

Inside

Lab Faces New Challenges

Star Trek and the Lab Salad

Plutonium Waste Reduction

Math and Science Academy Appreciation

NNSA's Organizational Plan

Research Park Opens

UC Awards Subcontracts

Buy-Northern Web Page

WIPP Shipments Resume

"Fire Book" Arrives

The Laboratory Connection, a monthly publication for northern New Mexico, is published by the Information Management Division and the Community Relations Office. The staff can be reached by e-mail at community@lanl.gov, by telephone at 1-800-508-4400, by fax at (505) 665-4411, or by Laboratory interoffice mail at Mail Stop A117.

Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by the University of California for the U.S. Department of Energy under contract W-7405-ENG-36. All company names, logos, and products mentioned herein are trademarks of their respective companies. Reference to any specific company or product is not to be construed as an endorsement of said company or product by the Regents of the University of California, the United States Government, the U.S. Department of Energy, nor any of their employees.

Editor: Christina Armijo

Contributing writers and photographers: Public Affairs Office staff contributed to this publication.

LALP-01-06



Los Alamos
NATIONAL LABORATORY

Los Alamos, New Mexico 87545

A National Nuclear Security Administration,
U.S. Department of Energy Laboratory
John C. Browne, Director