the laboratory
connection

volume 3 number 9

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

october 2002

a word from the Community Relations Office

New Lab Leaders Focus on Regional Business

Donna Smith, Industrial Business Development

The Laboratory's new chief of technology transfer has a mission: to get useful technology out into the commercial world where people can use it. Donna Smith, recently named to head the Lab's Industrial Business Development (IBD) division, said her team would like to see regional businesses participate in this process of commercializing our intellectual property.

"Our goal is to ensure that the processes are in place to effectively identify, assess, package and market Lab technologies," Smith said. "In particular, we'd like to engage with the businesses in our region to understand what they need, what issues they have, and where the Lab can reasonably assist them. Regional activities and outreach will be a big part of what I do."

IBD works with Lab inventors and authors to identify, protect and manage the Lab's intellectual property through patents and copyrights. The division also negotiates and executes the Lab's licenses and partnership agreements.

continued on page 2


Donna Smith


Teresa Trujillo

As part of the northern New Mexico community, the Laboratory has a stake in supporting the economic strength of the region, much of which depends on regional small business.

Two new leaders of Laboratory programs devoted to business concerns have announced initiatives to benefit business in our region. Donna Smith and Teresa Trujillo, newly appointed directors of the Industrial Business Development Division and the Small Business Office, both list assisting regional businesses as top priorities. Both are longtime Lab employees who have worked in the business sector for many years.

The Industrial Business Development program office is the conduit for Laboratory collaborations with private industries, universities, government agencies, and other national laboratories. Together with the Regional Business Development Office, they match Lab scientific and technical talent and facilities with research and development projects outside the Lab. In the past four years, they have assisted more than 110 emerging regional technology businesses, including 51 new start-ups, and assisted in creating more than 260 new jobs.

The Small Business Office offers many programs that contribute to local and regional small business development. The office sponsors outreach activities for networking, develops partnerships to promote economic development and provides information to Lab buyers and end users about the small business program.

Smith
continued from page 1

Several regional companies have successfully licensed or expanded Lab technologies, including Isotag, QTL Biosystems, and Hytec, all local technology firms. In fact, out of 175 licenses for Lab technologies, 32 are currently held by northern New Mexico companies. Of those 32, 10 are held by new start-up companies. Nineteen of those companies are in the Santa Fe/Los Alamos areas, and most manufacture software or radiation detectors. This year alone, five licenses have been issued in New Mexico. The numbers have increased dramatically in the past five years.

"There has been an active effort on our part to get our licenses to northern New Mexico companies," Smith said.

Smith said her challenge will be to establish a communications mechanism with local businesses.

"I hope to talk to business groups and roundtables about where we are in transferring technology and how we can help them benefit from this," she said. "One initiative under development is an alliance of New Mexico research organizations to generate better business opportunities by combining their intellectual properties.

We are looking at an interesting set of patents to see if we can place those in New Mexico companies or if there might be an opportunity for new New Mexico start-ups around this package of intellectual property. This is a different sort of initiative for us, but we are excited about the possibilities."

IBD has assembled an impressive external advisory board that met for the first time in April. The board includes the intellectual property licensing senior staff of Columbia and Stanford Universities, the Intellectual Assets manager from Dow Chemical, former research directors from several Fortune 500 companies, as well as local representatives like Lillian Montoya-Rael from the Regional Development Corporation (RDC), Kevin Holsapple from the Los Alamos Chamber of Commerce, Bill Enloe from Los Alamos National Bank, and John Garcia from the New Mexico Commerce and Development Department.

"The regional representatives give us insight on our impact in the region," Smith said. "The national people bring the best practices in the university world and in industry. They are making us think about what we're doing and why."

In addition to licensing technology to New Mexico companies, Smith recently signed a memorandum of understanding with the Space Alliance Technology Outreach Program (SATOP), a cooperative program between the states of New Mexico, Florida, New York, and Texas. SATOP offers free technological assistance to small businesses, using technology from a variety of sources to solve business challenges in machine design, process engineering, materials selection, and other technical issues.

The Department of Commerce, Office of Science and Technology Policy and Innovation Associates recently surveyed 300 federal laboratories and their activities in economic development. Los Alamos National Laboratory was named among the "Best 10" labs with innovative and exemplary practices in economic development. Smith said, "This national recognition of the Laboratory's efforts is gratifying and we look forward to working with regional companies and other organizations in moving Lab technology into the commercial sector."

●

Teresa Trujillo, Small Business Office

When Teresa Trujillo was named acting Small Business Office (SBO) program manager in June, she knew exactly what she wanted to do: increase major contractor oversight, continue and strengthen the Pueblo Initiatives, and engage more of the Laboratory's technical and project leaders to work with small businesses.

Trujillo, who is originally from Taos, has been in the business arena since 1981 and has worked at the Laboratory for 19 years.

"We're going to increase oversight of the large prime contractors to ensure that they also provide opportunities for small businesses," said Trujillo. "Small businesses don't have the bonding and licensing capacity to bid on something as large as the Strategic Computing Complex," The SCC was constructed by the large construction contractor Hensel Phelps.

Trujillo explained that, although the small businesses can't usually get the first-level contracts, they can bid and have many opportunities for work at the lower-tier level for the tasks such as plumbing, electrical wiring, and concrete.

In August, after recompeting the facilities support services contract previously held by Johnson Controls Northern New Mexico, the Laboratory selected Kellogg-Brown and Root, Inc. (KSL Services).

continued on page 7

LANL Partnership with Spectra Gases, Inc. Produces Life-Saving Isotopes

Spectra Gases, Inc. is starting production of high-purity stable isotopes including carbon-13 and oxygen-18 for nuclear medicine and biomedical research. To celebrate a partnership including the Laboratory's Industrial Business Development (IBD) division, the Department of Energy (DOE) and the Los Alamos Commerce and Development Corporation (LACDC) will host a Celebration Launch October 17 at the Hot Rocks Café in the Los Alamos Research Park building.

Production of high-purity stable isotopes at the revitalized Isotopes of Carbon, Oxygen and Nitrogen (ICON) facility at TA-46 minimizes the U.S. dependency on foreign sources. Last fall, a spokesperson for the National Institutes of Health (NIH) said that the U.S. need for these gases had become so acute that the NIH had been deferring or canceling research projects that used these isotopes.

Production of stable isotopes at the ICON facility will help the U.S. meet critical medical and diagnostic needs, positioning the Lab as a key player in biomedical research. It also strengthens the Lab's ability to maintain its existing isotope-related projects and bid on future scientific research proposals

"Being able to supply these isotopes to our nation's scientists is invaluable and we really appreciate Spectra Gases' interest in developing this capability further," said Susan Sprake from the Laboratory's Industrial Business Development Division.

In the late 1960s, Lab scientists pioneered the process of stable isotope production using the cryogenic-distillation separation method. The Lab produced these isotopes for a national market until the late 1980s, when the technology was transferred to the private sector.

In August 2001, the DOE, supported by the Laboratory, signed a long-term lease agreement to turn the ICON facility over to the LACDC. LACDC, in turn, negotiated a sub-lease of the facility to Spectra Gases, Inc. The lease agreement illustrated the Lab's willingness to do business differently by allowing a private company to sublease a DOE facility. The ICON facility was leased to the LACDC and then subleased to Spectra Gases, following the model of the Los Alamos Research Park.

Beginning in September 2001 and using cryogenic-distillation columns operated by the Lab ten years ago, Spectra developed a three-phase plan to repair and modernize the columns and other plant support systems.

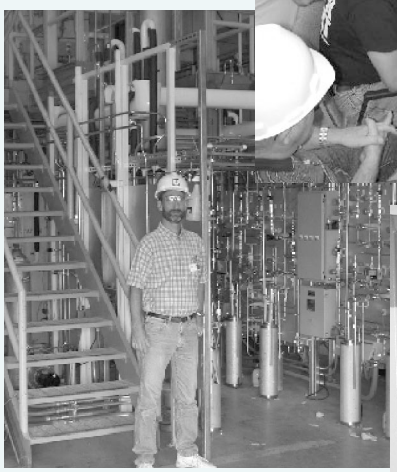
Spectra Gases designed the gas processing equipment that was fabricated at their New Jersey-based Equipment Division. Currently, a general contractor has completed the equipment installation and a mechanical contractor has successfully upgraded the plant's ventilation system to meet current industry standards. The DOE approved key building modification plans, including construction of the gas cylinder storage pads, ventilation, and weather protection awnings.

The plant will operate under stringent Occupational Safety and Health Administration (OSHA) Process Safety Management (PSM) safety guidelines. All process safety documentation and Standard Operating Procedures (SOPs) have been drafted, reviewed and approved. Two full-time employees, a facility manager and an operator, have been hired.

"We are striving to become a valuable addition to the Los Alamos and northern New Mexico business community," said Andrew Dietz, Chief Executive Officer (CEO) of Spectra Gases. Dietz added that Spectra Gases anticipates eventually hiring between 80 and 100 people for the northern New Mexico operations.

continued on page 5

Spectra Gases employees hold a team meeting during start-up of the plant control system at the ICON facility.



Spectra Gases project engineer Joel Toifel stands in front of the newly installed equipment at the ICON facility.

Spectra Gases employees inspect the equipment and make adjustments at the ICON facility.

To Commuters on US 84/285: Don't Go It Alone Once Reconstruction Begins

Although commuting is a way of life for many Laboratory employees, being part of a carpool is not often the first choice. Census figures from 2000 show that 76 percent of workers drive alone to their jobs, up from 64 percent two decades ago.

The beginning of the US 84/285 Highway Reconstruction project from Santa Fe to Pojoaque may make carpools more attractive.

"There is no alternate route to avoid construction on US 84/285," said Pete Rahn, New Mexico State Highway and Traffic Department Secretary. Recent estimates show that 75 percent of traffic on this road are single occupancy vehicles. That's got to change significantly in the next four months, or traffic will be at a standstill or slow crawl through much of this project."

About 200 people attended the June public meeting held by the New Mexico State Highway and Transportation Department (NMSHTD) and Proof Positive, Inc., a public information contractor. The project goal is to improve both the traffic capacity and the safety of the road.

Valerie Santillanes, a communications consultant for Proof Positive assigned to the US 84/285 project, said the project completion goal is the summer of 2004. Santillanes can be contacted at 505-690-8105. The project website address is: http://www.us84-285.com

The project's three portions are: South Project from US 599 to the Santa Fe Opera, Middle Project, which is the Rio Tesuque Bridge, and North Project, Tesuque Pueblo north to County Road 89D.

South Project plans, by Parsons Brinckerhoff, call for rebuilding 3.5 miles of highway between the NM 599/Santa Fe Relief Route interchange and the Santa Fe Opera. When completed, the highway will include an interchange at County Road 73 at South Tesuque, an overpass for local traffic at Tano Road, two miles of new heavy-vehicle climbing lanes in each direction and local access roads to separate neighborhood traffic from the highway.

Middle Project plans, by Bohannan Huston, call for a bridge replacement over the Rio Tesuque and west of the existing bridge. The north intersection of County Road 73 and US 84/285 will be converted to a right-in, right-out intersection. The North Tesuque intersection will be maintained as a full intersection with a temporary traffic signal until after the construction of the South Tesuque Interchange.

North Project plans, designed by the Louis Berger Group, call for the 2.2-mile section of US 84/285 from the northern boundary of the Tesuque Pueblo to County Road 89D in Pojoaque, to provide access to all adjacent businesses and residences. The design features reconstruction of the four-lane mainline, two interchanges, and a two-way frontage road system.

Rahn said that the FNF Construction Company from Tucson, Arizona, was selected as the contractor. FNF will be limited to a maximum number of days in which operations affecting traffic in this corridor can be conducted, and will face a day-to-day penalty for exceeding the contract time limit.

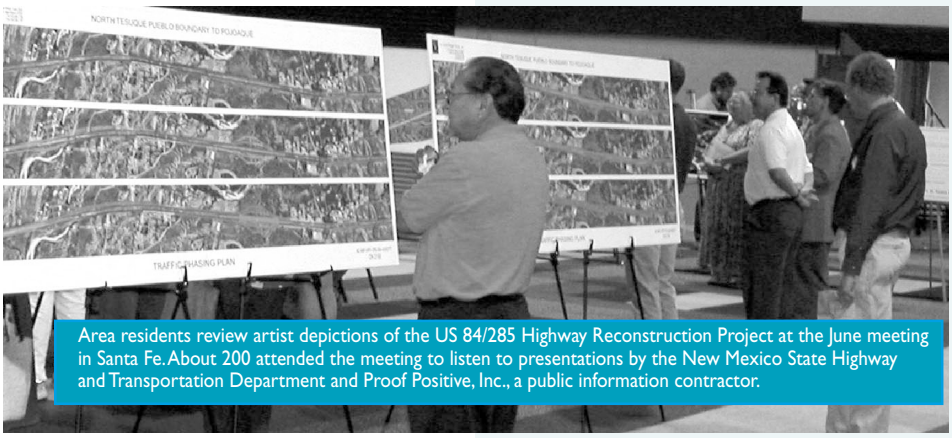
FNF will also be required to maintain two lanes of traffic in each direction with no lane closures during the peak weekday hours of 6:30 to 8:30 a.m. and 4 to 6 p.m. The speed limit will be lowered to 45 mph.

NMSHTD estimates that about 40,000 cars travel US 84/285 daily. To avoid delays, traffic needs to be reduced by 20 percent. Ride sharing, express bus service (Park&Ride), and vanpools are recommended.

Laboratory Director John Browne said, "Safety must be in the forefront of our minds not only when we work at the Lab site and at home, but also while we are driving, biking, and walking. Saving that extra minute or two just isn't worth the risk of someone dying or getting seriously injured."

Browne also said that because we are moving into a period of considerable construction, "I need all of you to follow the directions for traffic flow so that no one gets hurt. Please demonstrate patience in dealing with these disruptions," he said. "I would like all of us to commit to safe driving practices. Drive within the speed limit. Leave home a little earlier for your commute and drive defensively.

For more information about carpooling and vanpooling call 988-7433.



Area residents review artist depictions of the US 84/285 Highway Reconstruction Project at the June meeting in Santa Fe. About 200 attended the meeting to listen to presentations by the New Mexico State Highway and Transportation Department and Proof Positive, Inc., a public information contractor.

Lab Links Local Economic Support to Award of Large Contracts

When the Lab plans to award a contract of over 5 million dollars it also looks closely to ensure that the potential contractor will provide economic development to the region as well as be a good corporate citizen, said Moe Zamora with the Business Operations Division, who works closely with small-business development. Such economic support is part of the Lab's Appendix F performance measures of the contract between the Lab's manager, the University of California, and the Department of Energy. The measures require the development of small and small-disadvantaged businesses, veteran- and women-owned businesses and businesses in Historically Underutilized Business Zones (HUBZones) of which Rio Arriba and Taos Counties qualify, as well as the local pueblos and even a couple of census tracks in Santa Fe.

The Lab looks at contractors to supply economic development support in the areas where they are best suited, said Zamora. In the case of the recently awarded contract to IBM to assist the Lab with its administrative functions, the Lab anticipates local economic support will come in the form of hardware (workstations) and technical support for other economic development areas, he said.

"We primarily look for contractors to provide local business development, workforce development and outreach," Zamora said. "In IBM's case, its strengths in hardware and technical savvy can be used for assistance to the region through donated computers to schools and non-profit organizations as well as support of regional economic development thrusts through the support of e-commerce and other professional technical support as needed such as Local Area Networks (LANs)."

Through this negotiated process, the Lab works with local organizations to help ensure the maximum compatibility between local needs and what the particular contractor has to offer. "We will be meeting with them [IBM] to determine the best match of resources to need," said Zamora. The Lab doesn't require the contractor to set aside a percentage of revenues, for instance, he said, because that might not be the most efficient way to use an organization's resources. To help ensure that contractors follow through on their commitments, they are required to demonstrate their activities though semiannual reports to the Lab.

Although the IBM contract may be worth up to $22 million, the Lab's largest single contract is for site support services and went to a new contractor Kellogg Brown and Root, Inc. (KSL Services). This contract, that will soon be transitioned from Johnson Controls, is worth up to $150 million a year for five years. Expectations for KSL Services will be different than those of IBM, said Zamora.

The KSL Services contract is larger and, therefore, there will be greater expectations for regional economic support, he said. IBM's computer background will be used to augment their regional support, but the KSL Services organization is very people intensive. That will translate to a greater emphasis on workforce development and other people issues including a greater emphasis on regional citizenship, Zamora said. Although the Lab is still working with new vendors to determine just what role they will play in the regional economy, their impacts are expected to be beneficial and long lasting.

CORPORATE LARGESSE FOR EDUCATION: Qwest representative Charles Marquez presents a check for $7,500 to Joe Vigil, project director for the Math and Science Academy and Carol Brown, Master Teacher for the program.

Spectra Gases continued from page 3

In addition to supplying the Lab, Spectra will use the isotopes to make labeled bio-chemicals at its Spectra Stable Isotopes Group located in Columbia, Maryland. These products include amino acids, carbohydrates, lipids, and nucleic acids in which the naturally abundant isotopes of hydrogen, carbon, and nitrogen are replaced with the stable isotopes of these elements. These labeled compounds are used by researchers to determine the structure of proteins, carbohydrates, and nucleic acids at the atomic level, and in metabolic studies exploiting the increased mass of compounds labeled with stable isotopes.

"We're extremely pleased that Spectra Gases has taken the initiative and sees the northern New Mexico area as a good place to develop a new part of their business," said Kevin Holsapple, Executive Director of the Los Alamos Commerce and Development Corporation. "We welcome them with open arms to the community and are excited about providing any help and assistance because that's going to help this region develop more successful private businesses.

The Spectra Gases Celebration Launch will be held from 1 to 5 p.m. on October 17, 2002, at the Los Alamos Research Park. For more information, please contact Kevin Holsapple at 661-4806 or Susan Sprake at 665-3613.

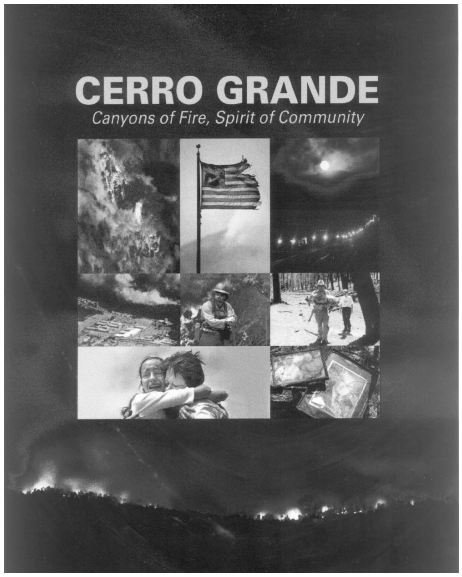
●

IN REMEMBRANCE:
On September 11th, the Lab paused for a brief ceremony to commemorate the victims and heroes of the attacks on America one year earlier.

Cerro Grande Fire Book Scholarships Awarded

The Laboratory participated in the award of ten one-time, $1,000 scholarships from the proceeds of the sale of the book about the fire, *Cerro Grande Canyons of Fire, Spirit of Community,* along with Los Alamos National Bank, the Federal Emergency Management Agency (FEMA), and KRSN. Any student from a family residing in Los Alamos during the fire who suffered total loss of their primary residence was eligible to apply. A public service announcement about how to apply for the scholarships was distributed to all of the newspapers in northern New Mexico, and the recipients' names were selected during KRSN's morning radio show on August 15.

The Cerro Grande Fire started on May 4, 2000, as a prescribed burn on an obscure peak in northern New Mexico's Jemez Mountains. Six days later, the fire raged in Los Alamos — an out-of-control inferno that destroyed the homes of more than 350



families and burned 7,764 acres of Los Alamos National Laboratory. In July, the blaze was subdued after incinerating 47,650 acres and costing the federal government over one billion dollars.

Cerro Grande Canyons of Fire, Spirit of Community tells the story of the largest wildfire in New Mexico history. With more than 400 photographs, this book records not only the facts, but also compelling stories that emerged from the flames.

Mark Bentley selects one of the 10 Cerro Grande Fire book scholarship winners during his KRSN morning show on August 15.

During the Cerro Grande Fire, friends and neighbors from across New Mexico, around the United States, and from as far away as Russia and Japan responded with compassion and generosity.

Trujillo
continued from page 2

"We're going to ensure that KSL Services works with small businesses," Trujillo said.

Trujillo said another area of focus will be oversight of the contracts for environmental services because this is another area in which small businesses can participate.

"We just issued an environmental services contract worth $22 million that includes environmental services, architectural and engineering services, research and development and construction," she said. "So, even though this is the small business office, I'm going to be watching large businesses. Companies like Hensel Phelps Construction Company and their partners Parsons Brinckerhoff and Gardner Zemke did really well. I want to use them as a model."

Trujillo also said she'd continue the Northern New Mexico Pueblo Initiative, which is a strategy for economic development designed to help fulfill the business infrastructure needs of tribally owned enterprises and of local independent American Indian business owners. The Small Business Office will join with economic development specialists and subject matter experts from each of the Eight Northern Pueblos to identify their business infrastructure needs and to fulfill the mandates of the cooperative agreements. This is a partnership between the Community Relations Office Tribal Team and the SBO. All subcontracts under this project have met or exceeded schedules.

"We're very pleased with the progress, but I want to issue a special thanks to Stephen Mee, the Cerro Grande Rehabilitation Project Leader. I'd love to have more project leaders like him."

Trujillo's third area of focus will be to encourage inreach by engaging more of the Laboratory's technical and project leaders to work with small businesses.

"I want to look at the sustainability of Laboratory programs and the opportunities for small businesses to participate in supporting those programs by providing needed goods and services," she explained. "Because to me, economic development depends on it."

Trujillo compared the Cerro Grande Rehabilitation Project (CGRP) to the Homeland Security Project because although by saying that while the CGRP has been very good for northern New Mexico, its funding only extends to FY03.

"On the other hand, the Homeland Security Program will be heavily funded past FY03 and I want to look for opportunities within these long-term funded programs to make sure that the small business opportunities have been identified and can be sustained," she said.

The Small Business Office will also continue its outreach activities, its northern New Mexico preference program for small businesses, and its small business conferences and training opportunities.

"We're looking forward to expanding the Laboratory's Small Business Office in Española in FY03," Trujillo said. "We'll be sharing joint tenancy with the Los Alamos Foundation and the Community Relations Office at Northern New Mexico Community College, provided leasing negotiations proceed as planned."

●

Legislative Committee Meets in LA

Laboratory Director John Browne testified before the newly created New Mexico Legislative Laboratory Oversight Committee at its meeting on August 9 at the Los Alamos Research Park. Rich Marquez, the Lab's associate director for administration, spoke to the committee about institutional hiring, education, and economic initiatives.

New Mexico Senate Joint Memorial 84 was passed in the 2002 Legislature creating the panel. The memorial directed the Legislature to create the joint legislative committee and a citizens advisory board to review the activities, operation, and management of the Laboratory; to take testimony from a citizens advisory group on issues relating to the Laboratory; and to report its findings to the California Senate committee overseeing the Laboratory and to the New Mexico Legislature.

Wooten: The Lab Provided an Opportunity for Research and Discovery

Sometimes diversity just needs to be given a chance to happen, as with Omar Wooten, currently a full-time graduate research assistant in the Health, Safety and Radiation Protection Group.

"My advisor came to me and asked if I wanted to go to Los Alamos,'" Wooten explained. "I didn't know what to expect [but] I came out in November 2000 to meet the group leader. Then, I came out the following summer, had a great time, accomplished a lot, and enjoyed the environment."

Since then, Wooten has worked at the Laboratory for two consecutive summers and will complete his Ph.D. research in nuclear engineering here.

He received his Bachelor's degree in physics from Morehouse College and his Master's degree in health physics from Georgia Tech University. He first heard about the Laboratory through a high school friend, Tim Mason, who now works as a staff member in the Nonproliferation and International Security Division.

"I did actively try to convince Omar that the Laboratory would be a good fit for him," Mason said. "I'm not an expert in his field, but with his attitude, work ethic, and intelligence, he would be an asset to most any organization."

Wooten's mentor, Ray Guilmette is the dosimetry team leader for the Health, Safety, and Radiation Protection Group.

"This is actually the second summer that he has been at LANL and in the HSR-12 group," Guilmette said. "Last year, he worked on a specific project in internal dosimetry and did very well. In fact, his project formed the basis for getting a new initiative off the ground at the University of Nevada-Las Vegas.

Wooten was also selected as a Student Programs Advisory Committee representative to the Lab's Diversity Affirmative Action Board.

Inside

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.

Editor: Kay Roybal Assistant Editor: Vanessa A. De LaCruz

Public Affairs, Community Relations Office, IM-1 staff contributed to this publication.

LALP-02-05

Los Alamos NATIONAL LABORATORY

Los Alamos, New Mexico 87545

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

Nonprofiit organization
US Postage
PAID
Albuquerque, NM
Permit No. 532