

the laboratory connection

volume 1 number 2

december 2000

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

a word from the Community Relations Office

A "Safe House" for beryllium is how one regional newspaper characterized the Lab's recent unveiling of its \$14 million processing facility.

In mid-November, the Laboratory hosted a tour for regional community leaders to see first-hand its state-of-the-art beryllium facility. This was the first in a series of periodic tours of various Lab facilities that Community Relations plans to organize for regional leaders in the coming year. We hope to use these tours as a way to help strengthen both understanding of Lab programs, and Lab appreciation of community interests in our operations.

The group of community representatives and leaders observed machinist Rick Lauer (below) of Engineering Sciences and Applications division wearing full Personal Protection Equipment while he demonstrated a machining process inside the new Beryllium Technology Facility (BTF). The facility, located near the Sigma building



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Students sample and monitor the quality of air, water, and biological specimens with twenty-first century technology.



Pueblo Students: Bridging the Gap Between Science and Ancient Wisdom

High school students in the Community-Based Education Model (CBEM) program at Santa Fe Indian School learn about environmental monitoring in an active way, using twenty-first century technology in their pueblo communities. Student teams gather and analyze data and work with their pueblos' environmental departments as they learn about their centuries-old cultural harmony with the land.

This dynamic interdisciplinary program combines classroom education with hands-on field activities that involve environmental science, mathematical modeling, research, and communications. In response to a request from the pueblo governors to improve student math and science scores while at the same time cultivating student interest in their Native American heritage, Santa Fe Indian School initiated the program in 1995 with grants from the Department of Energy and Intel Corporation. The education program has a twofold purpose: to motivate student interest in science and mathematics and

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in Technical Area 3, was opened to the group for a tour and presentation on the status of beryllium work at the Lab. The group included representatives from the pueblos of San Ildefonso, San Juan, Picuris, and the Eight Northern Indian Pueblos Council, as well as Los Alamos County, the City of Española, Santa Fe County, Senator Bingaman's office, and the Department of Energy Citizen's Advisory Board. Media representatives were also provided a tour of the BTF.

Lauer machined a small sample of graphite to illustrate the high-pressure vacuum system used in the BTF to capture the waste products from the process, not only to protect workers from exposure to hazardous materials but also for recycling purposes. The BTF incorporates state-of-the-art air handling and monitoring technologies to keep potential exposure to workers well below standards set by both the Environmental Protection Agency and Department of Energy. The facility also boasts its own in-house laboratory for analysis of worker's breathing zone monitors, as well as an in-house laundry for handling contaminated Personal Protection Equipment.

Pueblo Students
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to motivate student interest in their pueblos, culture, and heritage.

Pueblo members determine the core of the curriculum and choose the real-life environmental topics and issues for students to work on, such as assessing and monitoring aquatic habitats, air quality, surface water and groundwater, wetlands, and watershed use. Students meet and work with their pueblo environmental departments throughout the year.

Student teams make weekly treks to the pueblo communities



John Browne receives plaque from MAES. Laboratory Director John Browne, right, receives a plaque of the cover of the Society of Mexican American Engineers and Scientists (MAES) national magazine from 1999 that profiled several Laboratory employees, including Browne. The plaque was recently presented to Browne by David Olivias, center, of Plutonium Metallurgy, Virginia Rey of Radiation Protection Services and Ruben Rangel, left, of Environment, Safety and Health. The Northern New Mexico Professional Chapter of MAES, whose President is Rangel and Vice-President is Rey, sponsored its international symposium and career fair during October in Albuquerque with financial support and encouragement by the Lab.

(Cochiti, Jemez, Santa Clara, and Tesuque) to gather data and establish baseline information, as they develop and apply the academic and technical skills necessary to deal with their current topic. Students use scientific equipment to sample and monitor the quality of air, soil, water, and biological specimens. For example, students have learned to use computer technologies, geographic information systems, global positioning systems, and regularly use the Internet as a research tool.

CBEM students conduct historical research and create photographic archives of pueblo community cultural resources (sites and artifacts). They also learn about regulations and laws that protect the public and the environment. These young Native Americans, in turn, educate their friends, family members, and communities about how

and why the environment is monitored. They develop the knowledge that comes with experiential learning and work toward resolution of community issues and problems. They are excited about their work in the pueblo communities, and math and science test scores have improved.

Several students agree they like to "work closely with the pueblo elders." One enthusiastic student who has participated in the program for two years, says, "It gets your brain thinking how you can be part of it — be part of the solution."

Editor's Note: The preceding article is an excerpt from For the Seventh Generation-Environment, Safety, and Health at Los Alamos National Laboratory: A Report to Our Communities 1999-2000, Volume IV. Copies are available by contacting the Community Relations Office at (800) 508-4400 or the ESH Office at es&hreport@lanl.gov.

Over \$700,000 for Scholarships, United Way

Lab employees during September through November pitched in generously from their own pockets to support the LANL Employee Scholarship Fund, and two United Way agencies, the United Way of Los Alamos/Northern New Mexico and United Way of Santa Fe County.

The third Los Alamos Employees' Scholarship Fund campaign raised over \$95,000 for college scholarships. In the first two years of the program, 78 high school and college students received scholarships and Lab employees and subcontract personnel donated or pledged \$156,000 to the scholarship fund.

Last year, about a quarter of the Lab workforce participated in the United Way campaign. This year, participation increased to over 34%. The theme for this year's campaign was, "They were there for us!" referring to the many agencies that contributed to relief efforts following the Cerro Grande fire. Total 2000 funds donated exceeded \$605,000, compared with just over \$403,000 last year. The increase in participation and donated funds helps demonstrate Lab employees' individual willingness to help United Way agencies by generously donating to agencies that assist others in need.



Almost finished. Work is continuing on the 70,000-square-foot Los Alamos Research Park. The complex is a partnership among the Laboratory, Los Alamos Commerce and Development Corp., Los Alamos County, and the Department of Energy to enhance regional economic opportunities in northern New Mexico by attracting regional and national companies.

Trade Fair Focus: Business Network Opportunities



Bennie Gonzales, center, Small Business Program Office manager at the Lab, Dennis Roybal, deputy director of the Business Operations Division, and Anna Mueller, president of NEDA Business Consultants Inc. of Albuquerque, talk to a vendor at the Outreach 2000 mini-trade fair at Northern New Mexico Community College in Española.

One hundred and one businesses from throughout northern New Mexico participated in the "Outreach 2000" mini-trade fair in late October at Northern New Mexico Community College in Española. The trade fair was sponsored by the Small Business Program Office of the Lab, Strategic Learning Services, and the State Procurement Assistance Program.

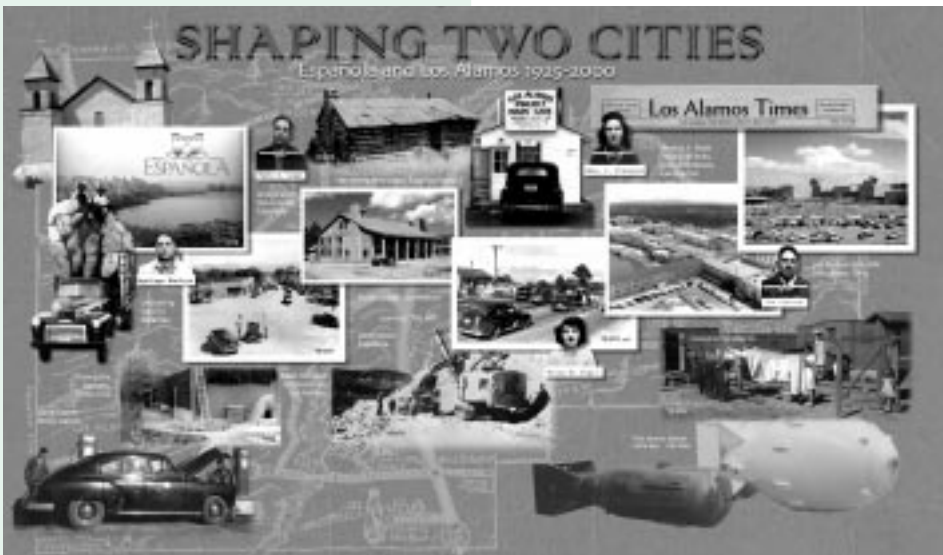
The trade fair gave businesses in the seven-county region surrounding the Laboratory an opportunity to meet with regional procurement organizations and other business professionals. The networking could lead to new marketing opportunities for the businesses. Many smaller businesses have not developed contacts at the local and state government levels, and the idea behind the fair was to put these businesses in front of state and municipal government buyers

and other agencies that have procurement opportunities available.

The Lab's procurement operation was represented by 80 buyers, including Sandia National Laboratories, Intel Corp., and state government, among others. The Lab sponsored the workshop to help businesses create a relationship that leads to business opportunities that are long lasting and sustainable, with a goal of strengthening the economic development of the region through the business community.

For more information on the Lab's Small Business Office programs, call 667-4410 or 1-800-472-9861, or Strategic Learning Services at 747-3824. Or go online to <http://buynorthern.lanl.gov>.

Employees Design Española Exhibit



Display for Española Jubilee. The accompanying brochure was researched, edited, and translated into Spanish by Mable Amador of Information Management (IM). Theresa Connaughton also of IM provided the many archival photos that were used.

Donald Montoya of Information Management designed the exhibit recently on display at the Convento in Española, showing the relationship between Los Alamos and its neighbor in the valley. "Shaping Two Cities: Española and Los Alamos 1925-2000," was hung in the Convento as part of the City of Española's 75th anniversary as an incorporated municipality. The display depicts the relationship between the two towns in the 75-year period.

The display, viewed from left to right across its 10-foot-wide by 6-foot-high canvas, includes images from the Santa Cruz Church to Manhattan Era project photos of Los Alamos. It also includes a photo of construction of present-day NM 502, a homesteaders cabin on one of the mesas on the Pajarito Plateau, a 1940's photo of the Ford dealership in Española, a circa 1940 Fuller Lodge photograph, and the Administration Building prior to construction of the Otowi Building.

"When the U.S. War Department acquired the Pajarito Plateau for the Los Alamos Laboratory in late 1942, many of the miners and factory workers returned

home to take jobs with the Manhattan Project," the text accompanying the display reads. "These early workers from Española contributed significantly to the development of the first atomic bombs, which ended World War II and changed the world forever." The text continues: "After the war, Española residents continued to play a vital role at Los Alamos, helping the Laboratory become a world-renowned institution. Española residents continue to be a major part of the Los Alamos National Laboratory culture and workforce."

The display is now showing at Española's City Hall through the end of January 2001.

Call Center Dedicated in Las Vegas

Las Vegas, N.M., city officials dedicated a new call center recently that became reality in part through the efforts of Johnson Controls Northern New Mexico (JCNNM), the Lab's

largest subcontractor. The new center is expected to provide up to 400 new jobs in Las Vegas, about 60 miles northeast of Santa Fe. JCNNM grant funding was the final essential piece to complete a major funding gap that would have otherwise put the project on hold for at least another year.

Data Listing Services of Burnsville, Minn. plans to open the new telephone call center in Las Vegas and three other New Mexico cities. The company, which does business as "The Connection" in New Mexico, received some \$3.1 million in state government funds to open the call centers. They have similar operations in Nebraska, South Dakota, and North Dakota. Data Listing Services also plans to operate call centers in Carlsbad, Grants, and Moriarty.

Johnson Controls provided \$200,000 to be used for the infrastructure build out of an existing commercial building. JCNNM is hoping to use this effort to leverage The Connection to build a similar center in Rio Arriba and/or Taos counties. The new building is located on Mills Avenue northwest of the Wilson Complex on the New Mexico Highlands University campus. The building previously housed a department store.

Las Vegas city manager Jack Maes said management positions in the new company average between \$20,000 and \$40,000 annually. Starting salaries for customer service representatives are about \$7 an hour. Hiring began in mid-October for customer service representatives, and the center opened in November. "This is probably the largest economic development employment project we've ever had from a private employer," said Maes. "What this does is provide skills to the average unskilled worker. We're hoping Luna Vocational [Technical Institute] and Highlands will train these people to work in an information technology environment. Those jobs really pay well."

Lab Snags 7 Pollution Prevention Awards



Governor Gary Johnson, second from left, helped present Green Zia Environmental Excellence Awards to seven Laboratory employees and/or programs in October in Santa Fe. Shown (left to right) are James Dalton of Facilities and Waste Operations, Governor Johnson, Mike Baker, acting director of the Environmental Science and Waste Technology Division, Judith Snow of High Explosives Science and Technology, and Patrick Martinez of Staffing.

Seven organizations and projects from the Laboratory have won New Mexico Green Zia Environmental Excellence awards for their efforts in pollution prevention.

The Green Zia Environmental Excellence Program helps New Mexico businesses achieve environmental excellence by establishing environmental management systems based on pollution prevention. Sponsored by the New Mexico Environment Department and administered by the New Mexico Environmental Alliance, it's a partnership of state, local, and federal agencies; academia; private industry; and environmental advocacy groups.

The Lab won seven of the 30 Green Zia awards given this year, and its food service provider Aramark Corp. won a Commitment Award. The Commitment Award is given to organizations that have made strong commitments to pollution preven-

tion and are establishing basic, systematic pollution prevention programs. The Governor's Green Zia Environmental Excellence Award, the highest honor awarded, is reserved for organizations that have fully integrated prevention-based environmental management systems in place. Winning organizations must demonstrate significant process improvement, substantial regulatory compliance, measurable waste reduction, and proven leadership in environmental issues within the company and community.

Additional information about the Green Zia program is available online at ftp://www.nmenv.state.nm.us/docs/Gr_Zia/2000Criteria_final.doc. The Lab's winning applications are available online at http://emeso.lanl.gov/eso_projects/green_zia/Applying/application.html.

\$28.5 Million to Fight Tuberculosis

A six-nation consortium of 13 institutions led by the Laboratory will perform research that someday may help eradicate tuberculosis under a recent multimillion dollar grant from the National Institutes of Health (NIH). NIH's National Institute of General Medical Sciences and National Institute of Allergy and Infectious Diseases awarded the TB Structural Genomics Consortium, a five-year grant worth more than \$28.5 million. The Laboratory, through its Biosciences and Physics Divisions, will receive the grant, distribute the funds, and coordinate the work among all the institutions.

Tuberculosis is the world's number-one infectious disease, claiming about two million lives annually. About one-third of all people in the world are infected with TB. In fact, many people who die of complications caused by AIDS actually die from TB.

The number of new TB cases is on the rise, especially in Third World countries. Most infected people do not get the disease as long as their immune systems are strong, but *Mycobacterium tuberculosis*, which causes the disease, takes advantage of weakened immune systems and grows into full-blown disease in about 5 to 10 percent of infected people.

The new consortium's goal is to determine the structures and shapes of approximately 400 functional proteins from *M. tuberculosis*. Consortium members Lawrence Livermore National Laboratory, University of California, Los Angeles, University of California, Berkeley, Texas A&M University, and the Albert Einstein School of Medicine will receive direct funding from Los Alamos. The entire consortium recently held a three-day retreat in Santa Fe that included a strategy session for the TB work.

Household Hazardous Waste Collection Day Held at Santa Clara Pueblo

Employees of Waste Management Federal Services Inc., a subsidiary of GTS Duratek, wearing safety vests and white uniforms, collected old, unused paint, solvents, and other household hazardous waste from residents of Santa Clara and San Ildefonso Pueblos during a household hazardous waste collection day held recently at Santa Clara Pueblo. GTS Duratek coordinated the event with the assistance of the Lab's Small Business Program Office. EnviroSolve, another waste management disposal firm contracted by GTS Duratek, provided trained personnel and volunteers to ensure that all waste was properly handled and disposed.



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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 is an Affirmative Action/Equal Opportunity employer. It is operated by the University of California for the U.S. Department of Energy.

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

LALP-00-130

Los Alamos
NATIONAL LABORATORY

Los Alamos, New Mexico 87545