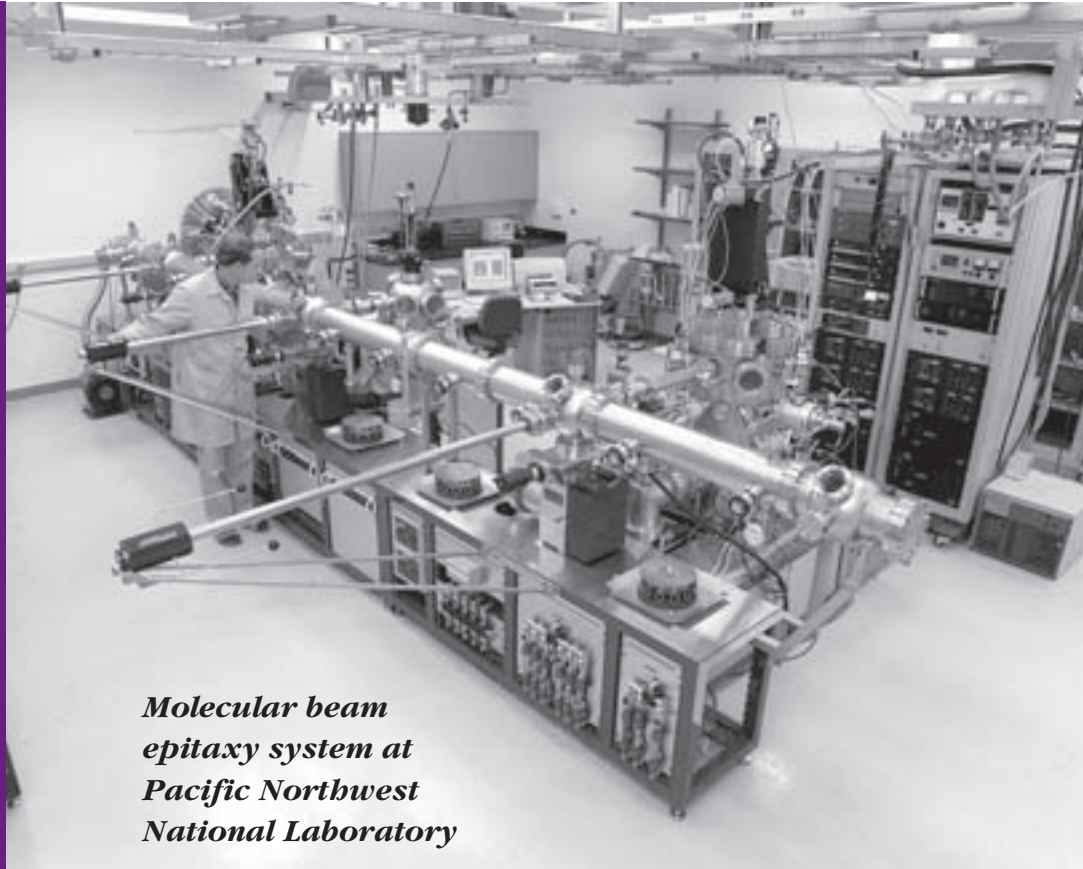


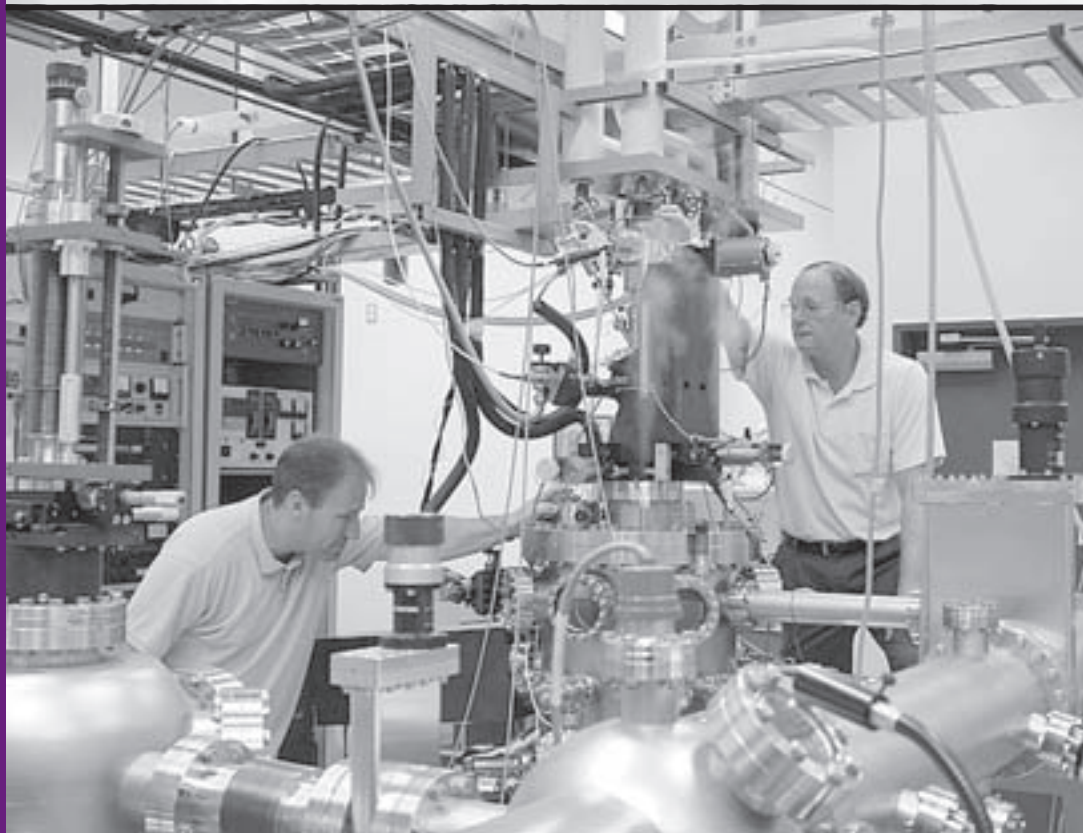
**Idaho labs to
return to core
nuclear research
mission**

**President
honors early
career scientists,
engineers**

**Cooperative
effort removes
highly enriched
uranium from
Yugoslavia**



*Molecular beam
epitaxy system at
Pacific Northwest
National Laboratory*



U.S. Department of Energy



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Guy F. Caruso is the new Administrator of the Department of Energy's Energy Information Administration.



Two contracts totaling \$86.4 million for construction at the Spallation Neutron Source in Oak Ridge, Tenn., represent the largest awarded by the Department of Energy's Oak Ridge National Laboratory since the Manhattan Project.

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The Department of Energy's (DOE) Office of Aviation Management presented its first annual awards to recognize excellence in DOE's aviation programs.



On our cover

Researchers at the Department of Energy's (DOE) Pacific Northwest National Laboratory (PNNL) are world leaders in advancing the state of a powerful research tool called molecular beam epitaxy (MBE) and applying the method to new materials. MBE uses separately generated and controlled beams of atoms and molecules to deposit a thin film of crystalline material on a solid substrate. The top photograph shows PNNL scientist and MBE developer Scott Chambers with the system in the William R. Wiley Environmental Molecular Sciences Laboratory. Below, PNNL's Tim Droubay and Chambers use the system to develop a newly patented method to create a continuous thin film of metal layer upon metal oxide. The method is described in the Aug. 2, 2002, issue of *Science* and at <http://www.pnl.gov/news/2002/02-23.htm>.

The Federal Laboratory Consortium has honored Chambers and PNNL with a 2002 Excellence in Technology Transfer Award for their efforts in transferring the MBE technology to the private sector. Researchers at seven DOE laboratories and facilities received 10 of the 26 awards presented this year.

For more on the technology transfer awards and DOE winners, see page 5.

Secretary travels to Paris, Moscow, London; promotes international energy cooperation

On July 25, 2002, Secretary of Energy Spencer Abraham began a two-week official trip to Paris, Moscow, and London. During his travels, he met with government, industry, and trade officials in each country. The trip was undertaken to expand and improve upon relationships with international energy partners and to provide an opportunity to better implement the international aspects of the Administration's National Energy Policy. "President Bush's National Energy Policy calls for enhanced international cooperation to improve our energy security and to maximize our abilities to develop new energy sources," Secretary Abraham said.

In Paris, the first leg of his trip, Secretary Abraham met and held discussions with the executive leadership of the International Energy Agency, the French Minister of

Energy, the French Atomic Energy Commission, and chief executive officers of energy companies and interests. Meeting topics included France's energy markets, cooperative agreements in nuclear energy, application of new energy technologies, and nuclear materials security issues.

In Russia, Secretary Abraham met with Russian Minister of Atomic Energy Alexander Rumyantsev on nuclear nonproliferation matters (see related article below). He also received briefings from a working group chartered by President Bush and Russian President Putin to develop collaborative research to reduce stocks of weapons-grade plutonium and enriched uranium.

On Aug. 1, 2002, Secretary Abraham met with Russian Energy Minister Igor Yusufov and Russia's largest oil companies to promote stronger cooperation on oil issues

and to discuss the upcoming commercial oil and gas summit to be held in Houston, Texas, Oct. 1-2, 2002. He also announced that the United States will fund an analysis of Eastern Siberian offshore oil and gas potential to determine which of the Russian Arctic offshore basins offers the greatest potential for development of oil and gas resources. The analysis is part of the U.S. Geological Survey's Arctic Resource Assessment, an ongoing study.

The final stop of the Secretary's trip was London, where he toured the International Petroleum Exchange on Aug. 5 and delivered a luncheon speech to the World Nuclear Association. The Secretary's speech is available at <http://www.energy.gov/HQDocs/speeches/2002/augss/WorldNuclearAssociationLuncheon.html>. ❖

International effort removes highly enriched uranium from aging Yugoslav reactor

Working in conjunction with Department of State and International Atomic Energy Agency (IAEA) officials, on Aug. 22, 2002, experts from the Office of International Material Protection in the Department of Energy's (DOE) National Nuclear Security Administration played a pivotal role in removing approximately 50 kilograms of highly enriched uranium (HEU) from the Vinca Institute near Belgrade, Yugoslavia. The DOE team from Oak Ridge National Laboratory monitored all technical aspects of the operation at Vinca, including development of the operational plan, verification of the material's type and weight, its packaging and safe transport.

This is "important forward progress for both U.S. and international non-proliferation efforts," Secretary of Energy Spencer Abraham said in praising the successful collaborative mission. "It is a model of how

governments, the international community, and the private sector can work together to reduce the threat posed by these materials to the citizens of the world."

The Vinca Project involved complex international and public-private cooperation. The governments of the United States and Russia reached an agreement with the government of Serbia, endorsed by the Yugoslav government, to work with the IAEA to return the material to Russia. The private Nuclear Threat Initiative provided funding for the effort to help address the safety and environmental issues presented by the HEU remaining at the Vinca Institute.

DOE technical experts confirmed the material and the integrity of the shipment upon its arrival in Dmitrovgrad, Russia. In Dmitrovgrad, the material will be converted to low-enriched uranium

under DOE's Material Conversion and Consolidation Project. In addition to providing key technical expertise and personnel, DOE will spend approximately \$400,000 on this operation.

"I commend Russian Minister of Atomic Energy Alexander Rumyantsev for his personal commitment and his Ministry's critical cooperation in this operation," Secretary Abraham said. "This U.S./Russian collaborative effort is dramatic evidence of the momentous progress we have made in our relationship."

During his second mission to Moscow in early August, Secretary Abraham met with Minister Rumyantsev to further the expansion and acceleration of programs to account for and secure nuclear materials. The two are scheduled to meet again this month at the IAEA conference in Vienna, Austria. ❖

Idaho labs to take on new nuclear mission

The Department of Energy's (DOE) Idaho National Engineering and Environmental Laboratory (INEEL) and Argonne National Laboratory-West (ANL-W) will undergo a major mission realignment to become the Nation's leading center of nuclear energy research and development. With the new mission, management of INEEL will transition from the Department's Office of Environmental Management to the Office of Nuclear Energy, Science and Technology.

The mission change was announced by Secretary of Energy Spencer Abraham on July 15, 2002, in a speech to INEEL employees during his visit to the site. "INEEL will be the epicenter of our efforts to expand nuclear energy as a reliable, affordable, and clean energy source for our nation's energy future," Secretary Abraham said. "While environmental cleanup remains a priority for us at Idaho, the importance of advanced, safe nuclear energy for the future demands that we return the Idaho labs to their core mission of nuclear technology research, development, and demonstration."

INEEL and ANL-W have led the development and demonstration of nuclear technology for more than 50 years and have designed, constructed, and operated more than 50 reactors at the site. The Idaho labs maintain world-class expertise and highly specialized and unique facilities that cannot be economically replicated and are critical to developing new, advanced nuclear energy systems.

Secretary Abraham directed Jessie Roberson, Assistant Secretary for Environmental Management, and William Magwood, Director, Office of Nuclear Energy, Science and Technology, to form a joint transition team of senior officials from DOE Headquarters program offices and the Idaho Operations Office. The team will work through the end of this fiscal year (Sept. 30, 2002) to develop a transition plan that will effect the change on the earliest possible schedule. The transition will be accomplished in consultation with the Idaho Congressional



Secretary Abraham announces the new INEEL and ANL-W mission during his speech to laboratory employees.

delegation, state and local officials, and other stakeholders. INEEL will receive an additional \$5 million in science and technology funding to "jump-start" its new mission profile.

Secretary Abraham also directed Nuclear Energy Director Magwood to conduct a 90-day review of the United States nuclear energy infrastructure. The review will identify the facilities and capabilities needed at Idaho to support the Administration's goal of expanding nuclear energy in the U.S. ❖

Caruso sworn in as EIA Administrator

On Aug. 14, 2002, Guy F. Caruso took the oath of office as Administrator of the Department of Energy's (DOE) Energy Information Administration (EIA). Caruso was confirmed by the United States Senate on July 26, 2002.

Caruso will head the principal energy statistical and analytical agency within the Department. EIA is charged with providing policy-neutral, objective, timely, and relevant data analysis and projections for use by DOE, other government agencies, the US. Congress, and the public.

"Guy Caruso brings significant expertise to the Department of Energy and will make an excellent addition to EIA," Secretary of Energy Spencer



Secretary Abraham administers the oath of office to Guy Caruso as his wife Donna looks on and holds the Bible.

Abraham said. "His record of public service has been exemplary and we welcome his return to the Energy Department."

Most recently, Caruso was Executive Director of the Strategic Energy Initiative Project at the Center for Strategic and International Studies, as well as Director of the National Energy Strategy Project for the United States Energy Association. From 1993 to 1998, he was Director, Office of Non-Member Countries, International Energy Agency, Paris, France. Caruso first joined DOE's Office of International Affairs in 1986 and served until 1993 as Director of several DOE offices—the Office of

Market Analysis, Office of Oil and Natural Gas Policy, Office of Domestic and International Energy Policy, and Office of Energy Emergency Policy Evaluation. ❖

Researchers earn technology transfer honors

The Federal Laboratory Consortium recently presented Dr. Robert Goldston, Director of the Department of Energy's (DOE) Princeton Plasma Physics Laboratory, its 2002 Laboratory Director of the Year Award. Goldston is one of three Federal laboratory directors honored by the Consortium for their contributions to the overall enhancement of technology transfer for economic development and their support of the Consortium and its activities.

The Consortium also presented 2002 Excellence in Technology Transfer Awards to researchers at seven Department laboratories and facilities for their successful efforts in transferring Federally developed technologies to the private sector. The Department received 10 of the 26 awards given this year to Federal laboratories. The DOE winning research teams and technologies are:

Argonne National Laboratory

- Shabbir Ahmed, Joong-Myeon Bae, J. David Carter, John Kopasz, Romesh Kumar, and Michael Krumpelt; Autothermal Fuel Reforming Catalyst for Fuel Cells; efficiently converts methanol, ethanol, natural gas, gasoline, and diesel into hydrogen.

Lawrence Berkeley National Laboratory

- Michael Siminovitch and Erik Page; The Berkeley Lamp; a high-performance, energy-efficient table lamp.



Dr. Robert Goldston

- Fred Winkelmann, Fred Buhl, Kathy Ellington, Ender Erdem, and Joe Huang; EnergyPlus; an energy software simulation program that accurately models building energy use.

Kansas City Plant, NNSA

- William Simons, Steve Brooks, Curtis Brown, Jim Butler, Noel Christensen, John Kirk, and Bob Ward; Feature-Based™ Machining Advisor; software that helps translate complex design drawings into manufactured parts.

National Renewable Energy Laboratory

- David Ginley, Chris Carlson, Philip Parilla, John Perkins, and Tanya Rivkin; DRWiN™; an electronic scanning antenna.

Oak Ridge National Laboratory

- James Hardy, Dave Rasmussen, Kathy Hylton, Jeff Price, Philip Bingham, Jim Goddard, Greg Hanson, Chuck Schaich, John Simpson, Ken Tobin, Larry Baylor, Matt Chidey, and John Turner; Digital-to-Digital Holography; 3-D inspection tool that detects submicron-scale defects on surfaces.

Pacific Northwest National Laboratory

- Scott Chambers, Don Baer, Bruce Harrer, and Mary Peterson; Molecular Beam Epitaxy for Semiconductor Wafer Development; uses multiple atomic beams to grow well-defined, controlled layers of materials for studying film and interface properties.
- Gordon Graff and team; Ultra-Barrier Coatings for Flat-Panel Displays; a polymer multilayer deposition process.
- Curt Carrender, Jill Farris, Ron Gilbert, Michael Lind, and Gary Morgan; Radio Frequency Identification Tags for Tracking and Inventory; can identify, locate and determine condition of items to which they are attached.

Sandia National Laboratories

- William Breiland and team; Mongrow/Thermogrow/ADVISOR Systems for Thin-Film Processing; optical diagnostic tools and data collection/analysis software. ❖

Pantex reaches pit repackaging milestone

The Department of Energy's Pantex Plant reached a significant milestone in July 2002 with the repackaging of the 5,000th plutonium pit into a Sealed Insert Container. Plutonium pits are nuclear components that are removed from weapons and stored at the Plant.

The repackaging operation inserts the plutonium pits into sealed containers more suitable for safe, long-term storage. Each pit is secured in an airtight sealed vessel, which is then placed in a steel storage container. This Sealed Insert system, in

operation since 1999, allows for operations at a substantially reduced cost and with greater safety than was available with other containers.

This process has been constantly improved to increase efficiencies and to reduce personnel radiation exposure. BWXT Pantex, which manages and operates the Plant for the Department's National Nuclear Security Administration (NNSA), has averaged over 200 pits repackaged per month since February 2001 and has reduced personnel radiation exposure by 40 percent during that time.

More than 30 employees work on pit repackaging daily, and more than 120 people have contributed to the program's overall success since repackaging began.

"The Sealed Insert Repackaging Team has done outstanding work in improving productivity while simultaneously focusing on the reduction of radiation exposure to workers," said Dan Glenn, Director, NNSA's Office of Amarillo Site Operations. "This combined success is a real benefit to Pantex." ❖

'Genomes to Life' research awards announced

On July 23, 2002, Secretary of Energy Spencer Abraham announced five major research awards for post-genomic research, totaling \$103 million over the next five years. The research will be conducted at six Department of Energy (DOE) national laboratories, 16 universities and research hospitals, and four private research institutes. Secretary Abraham presented ceremonial checks to the projects' lead researchers at a special event at DOE Headquarters in Washington, D.C.

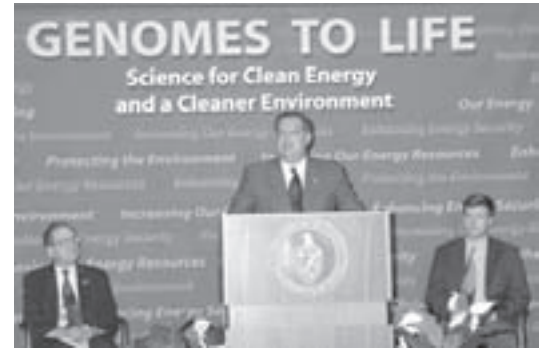
The awards are part of the Department's new "Genomes to Life" program that plans to take advantage of solutions that nature has already devised to help solve problems in energy production, environmental cleanup, and carbon cycling. The new research projects will focus on entire networks of genes and even entire biological systems.

The primary award recipients, projects, and partners are:

- **Oak Ridge National Laboratory (ORNL)**; \$23.4 million over three years; "Genomes to Life Center for Molecular and Cellular Systems: A Research Program for Identification and Characterization of Protein Complexes"; partners: Pacific Northwest National Laboratory (PNNL), Argonne National Laboratory (ANL), Sandia National Laboratories (Sandia), University of North

Carolina at Chapel Hill, University of Utah.

- **Lawrence Berkeley National Laboratory (LBNL)**; \$36.6 million over five years; "Rapid Deduction of Stress Response Pathways in Metal/Radionuclide Reducing Bacteria"; partners: Sandia; ORNL, University of California at Berkeley; University of Missouri, Columbia; University of Washington, Seattle; Diversa Corporation, San Diego, Calif.
- **Sandia National Laboratories**; \$19.1 million over three years; "Carbon Sequestration in Synechococcus: From Molecular Machines to Hierarchical Modeling"; partners: ORNL; LBNL; Los Alamos National Laboratory; National Center for Genome Resources, Santa Fe, N.M.; University of California at San Diego; University of Tennessee at Knoxville; University of Michigan, Ann Arbor; The Molecular Science Institute, Berkeley, Calif., University of California at Santa Barbara; University of Illinois, Champaign.
- **University of Massachusetts, Amherst**; cooperative agreement, \$8.9 million over three years; "Analysis of the Genetic Potential and Gene Expression of Microbial Communities Involved in the In Situ Bioremediation of Uranium



Secretary Abraham announces the "Genomes to Life" research awards. Seated at left is Dr. Raymond Orbach, Director, Office of Science; at right, award recipient Dr. Grant Heffelfinger, Sandia National Laboratories.

and Harvesting Electrical Energy from Organic Matter"; partners: The Institute for Genomic Research, Rockville, Md.; ANL; University of Tennessee, Memphis.

- **Harvard Medical School**; cooperative agreement, \$15 million over five years; "Microbial Ecology, Proteogenomics and Computational Optima"; partners: Massachusetts Institute of Technology, Cambridge, Mass.; Brigham and Women's Hospital, Boston, Mass.; and Massachusetts General Hospital, Boston.

The Genomes to Life program is managed and coordinated by DOE's Office of Science. Additional information is available at <http://doegenomestolife.org> ❖

Oil reserve fill rate to accelerate

Since May 2002, about 60,000 barrels of "royalty oil" produced daily from Federal leases in the Gulf of Mexico have been exchanged for oil going into the nation's Strategic Petroleum Reserve. The Department of Energy (DOE) plans to increase the "royalty-in-kind" exchange program by an additional 40,000 barrels per day.

The royalty-in-kind program applies to oil owed to the United States Government by producers who operate leases on the Federally owned Outer Continental Shelf. These producers are required to provide from 12.5 percent to 16.7 percent of the oil they produce to the U.S. Government. The Government can acquire the oil

or receive the equivalent dollar value. The program is administered by the Department of the Interior's Minerals Management Service (MMS)

On July 26, 2002, DOE issued a request for bids asking companies to exchange up to eight million barrels of royalty oil. Koch Supply & Trading LP, one of the world's largest crude oil trading companies, submitted the winning bid. Deliveries of crude oil will begin Oct. 1, 2002, and run through April 30, 2003.

Koch will acquire the royalty oil at designated MMS "market centers," exchange it for crude oil that meets Strategic Petroleum Reserve specifications, and deliver the "in kind" crude

oil to the Reserve. Actual volumes arriving at the Reserve will be adjusted to account for transportation and quality differentials. Koch's offer was selected on the basis that its exchange ratio provided the best value to the Government.

The Strategic Petroleum Reserve currently holds about 580 million barrels of crude oil in deep salt caverns along the Texas and Louisiana coast. President Bush has pledged to fill the Reserve to its full 700 million barrel capacity. Using the royalty-in-kind program, the Government can meet the President's goal by 2005 without using taxpayer dollars to buy oil on the open market. ❖

Technology seals success at Rocky Flats

An innovative packaging method is making it possible for the Department of Energy's Rocky Flats Environmental Technology Site to more efficiently dispose of massive pieces of slightly contaminated equipment. As former weapons production buildings are cleaned out and readied for demolition at Rocky Flats, this type of material, such as machining and foundry equipment, has to be packaged for shipment to receiver sites for disposal. Much of the equipment does not fit into standard cargo containers. The new InstaCote™ technology creates custom-sized packages for oversized pieces of equipment that eliminate the need to cut up the equipment to fit standard containers.

InstaCote was developed by InstaCote™, Inc., a subcontractor to Kaiser-Hill Company, L.L.C., the Rocky Flats Site cleanup and closure contractor. The process produces a polymeric coating by combining two reagent mixtures in a spray gun nozzle during application. The

mixture, sprayed onto a prepared piece of equipment, dries into a tough, non-hazardous material with properties that are unchanged by exposure to radiation. The finished product meets the Department of Transportation (DOT) definition of a "strong, tight package," and replaces the use of cargo containers. The only size limitation for this type of package is that it can travel on the road on a flatbed truck in accordance with DOT size limitations for the road.

Tested against various shipping hazards, InstaCote retained its tensile strength and ability to protect the environment from radiation. A one-quarter-inch thick layer of the coating was used in demonstrations of the technology. Rocky Flats routinely uses a coating depth of one-half inch to provide extra assurance. A profile containing the InstaCote process recently was approved by



Rocky Flats workers encase equipment with InstaCote™ for shipment.

the Department's Nevada Operations Office for waste disposal at the Nevada Test Site.

Significantly reduced worker exposure to contamination and industrial hazards and less time to prepare contaminated equipment for shipping are two of the many advantages of the InstaCote process. Other advantages include reduced volumes of shipments and cost savings from not having to build standard containers for each piece of oversized equipment. ❖

Pilot program aids emergency responders

The Departments of Energy (DOE) and Justice are partners in a cooperative pilot project, called the Homeland Defense Equipment Reuse (HDER) Program, to provide surplus radiological detection instrumentation and other equipment to state and local emergency first responder agencies nationwide to enhance their domestic preparedness capabilities. Secretary of Energy Spencer Abraham formally transferred the first shipment of surplus equipment to Fire Engine Company No. 3 in Washington, D.C., on Sept. 5.

"We are proud to help ensure that our law enforcement and emergency personnel have the necessary equipment and training to prepare them to respond effectively and thoroughly to any emergency," Secretary Abraham said. "And, we are pleased to provide DOE resources to help ensure America's homeland defense."

A variety of equipment from DOE sites will be made available through

the program. Specialists in the Department's Office of Assets Utilization, National Center of Excellence for Materials Recycle, in Oak Ridge, Tenn., will evaluate and refurbish the equipment. The Department of Justice Office for Domestic Preparedness (ODP) will work with established state contacts to identify appropriate local emergency responders, and DOE will deliver the equipment to those jurisdictions at no cost

Training will be available to the emergency responders through ODP's Domestic Preparedness Equipment Technical Assistance Program. Local support for the equipment, including calibration, maintenance, and refresher training, will be available through a partnership with the Health Physics Society, a 6,000-member national organization of radiation safety professionals.

The pilot phase of the HDER Program, which began July 1, 2002,



Secretary Abraham with the display of surplus Department of Energy radiation detection equipment donated to Fire Engine Company No. 3, Washington, D.C.

targets the nation's 10 largest metropolitan areas—Boston, Chicago, Dallas, Detroit, Houston, Los Angeles, New York City, Philadelphia, San Francisco, and Washington, D.C. Additional information on the program is available at <http://www.oakridge.doe.gov> or <http://www.ojp.usdoj.gov/odp/>. ❖

Under Secretary Card lauds Western for Path 15 work



Under Secretary for Energy, Science and Environment Robert Card visited the Department of Energy's Western Area Power Administration in Lakewood, Colo., on July 16, 2002. While there, he addressed a crowd of 275 Western employees and presented more than 30 awards to the staff for their work on the Path 15 project, including, in the photo, Western Administrator Mike HacsKaylo (left).

Responding to a May 2001 directive by Secretary of Energy Spencer Abraham, Western put together a public-private partnership to resolve the longstanding congestion problem along the Path 15 transmission line in California. On June 13, 2002, the Federal Energy Regulatory Commission approved a Letter Agreement setting out cost recovery and incentive proposals for a \$306 million upgrade to the line. The California Independent System Operator voted to accept the upgrade on June 25. Western and its Path 15 partners—Trans-Elect Inc. and Pacific Gas and Electric Co.—will break ground on the project in summer 2003 and expect project completion by fall 2004. ❖

Native American firm to support Southwestern Power



The Department of Energy's (DOE) Southwestern Power Administration has entered into a one-year support services contract with Wyandotte Net Tel (WNT) Company of Wyandotte, Okla. WNT, totally owned by the Wyandotte Nation of Oklahoma, offers a full array of client-server and networking technology products and support services which focus on the needs of corporate, institutional, and government users.

WNT will provide services to Southwestern in records management, information services, public affairs, mail services, and the reception desk. The contract fully supports the Department's American Indian Policy and promises significant savings to Southwestern by reducing the number of contractors performing the work.

In the photo, U. S. Congressman Brad Carson of Oklahoma (standing) watches as Southwestern Administrator Mike Deihl and Wyandotte Nation of Oklahoma Chief Leoford Bearskin, in traditional Wyandotte attire, commemorate the contract signing on Aug. 1, 2002. ❖

Kansas City Plant opens Visitor's Center



The Department of Energy's Kansas City Plant has opened the doors to a new Visitor's Center. The center uses state-of-the-art audio and plasma-screen video, photography, and traditional displays to give visitors an overview of the inner workings of the National Nuclear Security Administration facility.

An audiovisual timeline captures the more-than-50-year history of the Plant before leading guests into three areas featuring the facility's capabilities of today—planning and design, production, and quality and testing. The planning and design area focuses on electronic simulation, secure data exchange, and capabilities for developing and testing products before fabrication. The quality and testings section displays how the Plant maintains some of the highest quality standards in any industry.

The production area, observed at left by Kansas City Plant summer interns, highlights the facility's mechanical, electric, and engineered material assembly facilities. The Plant's flexible manufacturing system is on display in this section. ❖

Sail set as memorial to INEEL nuclear naval history

Years of work and the combined efforts of the Department of Energy's (DOE) Idaho Operations Office and Idaho National Engineering and Environmental Laboratory (INEEL), area Naval reservists, and local individuals paid off in June 2002 when the sail of the nuclear submarine *USS Hawkbill* was lowered into place to become the centerpiece of the Idaho Science Center in Arco. At right, INEEL personnel attach rigging to lift a section of the sail and place it onto the display base.

The sail of the *USS Hawkbill* will serve as a memorial to INEEL's past and present missions for the Nuclear Navy. These missions include designing and testing the first prototype nuclear propulsion systems, training Naval submarine officers and crewmen in reactor operations for more than 40 years, and ongoing research into extending the life of Naval fuel.

The *USS Hawkbill*, a Sturgeon (637) Class Fast Attack Submarine and the last of her kind, was launched April 12, 1969, and officially decommissioned March 15, 2000. ❖



Fernald volunteers active in bluebird protection

Not along ago, the population of the eastern bluebird was rapidly declining in Ohio and other parts of the midwestern United States. But thanks to some dedicated volunteers at the Department of Energy's (DOE) Fernald Environmental Management Project, the number of bluebirds is increasing in the site's surrounding southwestern Ohio communities. "As we clean up and restore the Fernald site, we're creating a viable habitat for bluebirds and other native wildlife and plant species," said Kathleen Nickel, DOE-Fernald environmental scientist.

For 12 years, Fernald volunteers have donated hundreds of hours of their own time building and monitoring bluebird boxes to encourage repopulation. At right, John Homer, a restoration ecologist with Fluor Fernald's Natural Resource Management team, is one of this year's 15 volunteer monitors of 72 nesting boxes placed around the 1,050-acre Fernald site. The boxes are monitored and maintained weekly during the nesting season, which runs from February until August. At least 50 bluebirds left the boxes during the first half of 2002. ❖

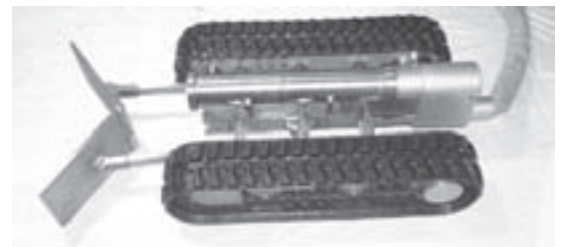


In-Tank Vehicle will aid Hanford tank waste cleanup

The Department of Energy's Office of River Protection in Richland, Wash., is testing a new robotic tool this month for retrieving highly radioactive tank waste. Resembling a tiny tractor, the In-Tank Vehicle (ITV) weighs 1,500 pounds and is five feet long. A suction pump and nozzle assembly sucks up sludge-like waste and shoots it to a central pump, called an articulating mast assembly, which then pumps the waste out of the tank.

The tool was built by Non Entry Systems Limited, Swansea, Wales. A similar piece of equipment called the Houdini was used to remove tank waste at the Department's Oak Ridge National Laboratory (ORNL). ORNL provided assistance to Office of River Protection personnel as they evaluated the robotic system for use at Hanford.

The ITV will undergo three months of rigorous testing at the Hanford Site's Cold Test Facility—a life-sized model of an actual Hanford waste tank. Personnel will push the ITV to its limits to determine operating capabilities and to decide if the tool needs further manufacturer modifications. ❖



DOE expands sustainable energy technologies to developing countries

On Aug. 31, 2002, at the World Summit on Sustainable Development in Johannesburg, South Africa, Under Secretary for Energy, Science and Environment Robert Card announced an expanded effort to deploy energy efficient and renewable energy technologies to developing countries. Under Secretary Card and Assistant Secretary for Energy Efficiency and Renewable Energy David Garman were members of the official United States delegation to the Summit.

"The United States has a quarter century of experience in developing and using these technologies," said Under Secretary Card. "We are committed to sharing this experience with international partners as we work together for a sustainable future."

The Department of Energy's (DOE) energy efficiency and

renewable energy programs are a major part of the United States' "Clean Energy Initiative: Powering Sustainable Development from Village to Metropolis." The initiative, one of several signature partnerships for sustainable development outlined at the Johannesburg Summit, has three goals:

- **Energy Efficiency for Sustainable Development** to reduce waste, save money, improve reliability, and optimize investments in new generating capacity;
- **The Global Village Energy Partnership** to bring electricity to about two billion people in the world now without it and to another one billion people who experience frequent supply disruptions; and
- **Healthy Homes and Communities** to promote cleaner transporta-

tion fuels and healthier indoor cooking and heating equipment.

Under Secretary Card also highlighted a number of DOE's international efforts to promote sustainable development. These efforts are profiled in a DOE report distributed to Summit delegates and attendees. The report contains 50 case studies of completed or ongoing energy and water projects around the world that are building blocks for sustainable development. The majority of the projects have DOE or U.S. Agency for International Development sponsorship. *Energy and Water for Sustainable Living: A Compendium of Energy and Water Success Stories*, DOE/PI-0001, prepared by DOE's Office of Policy and International Affairs, is available at <http://www.pi.energy.gov/library/ewsl.html>. ❖

ORNL awards largest contracts since Manhattan Project

The Department of Energy's Oak Ridge National Laboratory (ORNL) has awarded two contracts totaling \$86.4 million for construction at the Spallation Neutron Source (SNS) in Oak Ridge, Tenn. The combined contracts, awarded to Caddell/Blaine Joint Venture of Knoxville, Tenn., represent the largest at ORNL since the Manhattan Project.

"We are delighted that contracts of this size will go to local firms and local workers," said ORNL Director Bill Madia. "These contracts bring to \$520 million the total spent in Tennessee on procurements and salaries for the SNS project."

The two contracts will move forward construction of the Central Laboratory and Office (CLO) Building and the Target Building. The 254,000-square-foot CLO facility will be the hub of daily activity and will provide offices, laboratories, conference rooms, and shop space

needed to support research activities.

In the Target Building, the SNS accelerator system will deliver a high-energy proton beam to a liquid mercury target. The facility will house state-of-the-art instruments that will collect and analyze scientific data and help researchers understand the composition of materials. Up to 2,000 visiting scientists from the United States and overseas are expected to use the SNS each year to develop new technologies in telecommunications, manufacturing, transportation, information technology, biotechnology, and pharmaceuticals.

Work on the CLO and Target Buildings is expected to be completed in summer 2004. The SNS project continues on schedule and



Signing the new Spallation Neutron Source (SNS) construction contracts are (l-r) Bill Madia, Director, ORNL; Thom Mason, Director, SNS; and Kirby Caddell, Blaine Construction, Knoxville, Tenn.

on budget, with an estimated completion date in 2006. To date, the project has moved more than 1.4 million cubic feet of dirt, enough to fill the University of Tennessee's Neyland Stadium. Knight/Jacobs Joint Venture manages all construction for the SNS project. ❖

Early career scientists, engineers honored

Seven researchers funded by the Department of Energy (DOE) and its National Nuclear Security Administration (NNSA) have received the 2001 Presidential Early Career Award for Scientists and Engineers. The award, the highest honor bestowed by the United States Government on scientists and engineers beginning their independent careers, recognizes researchers who show exceptional potential for leadership at the frontiers of scientific knowledge.

President Bush presided at the July 12, 2002, award ceremony held at the Dwight D. Eisenhower Executive Office Building. A total of 60 researchers supported by eight Federal agencies received the Presidential award. Each DOE award winner received a citation, a plaque, and continued funding of their work by the Department for up to five years.

The seven researchers, were nominated for the Presidential award by the Department's Office of Science and NNSA Office of Defense Programs. Prior to the White House presentation, these offices jointly honored the award winners and presented DOE awards at a separate ceremony and reception on July 11.

The Presidential award winners and recipients of DOE's Office of Science Early Career Award in Science and Engineering are:

- **Ian Anderson**, Metals and Ceramics Division, Oak Ridge National

Laboratory (ORNL), for research in electron beam micro-characterization techniques and their application to materials research and development;

- **Vincent Cianciolo**, Physics Division, ORNL, for developing a scientific program and detector instrumentation for experiments at Brookhaven National Laboratory;

- **Mark Herrmann**, X-Division, Lawrence Livermore National Laboratory, for contributions to the fundamental studies of implosion and ignition physics in inertial fusion; and

- **Jizhong Zhou**, Environmental Sciences Division, ORNL, for research in functional genomics and microbial ecology and development of technologies crucial to microscale environmental research.

Recipients of the Presidential award and the NNSA Defense Programs Early Career Scientist and Engineer Award are:

- **Kenneth Gall**, University of Colorado at Boulder, for contributions in developing multi-scale experiments and enhanced material models to assess potential vulnerabilities of weapon system components;



At the Presidential Award ceremony with John Marburger, Director, White House Office of Science and Technology Policy (second from left), are Oak Ridge National Laboratory recipients (l-r) Vincent Cianciolo, Physics Division; Ian Anderson, Metals and Ceramics Division; and Jizhong (Joe) Zhou, Environmental Sciences Division.

- **Paul M. Ricker**, University of Chicago, for developing technical advances in multi-physics and scalable parallel computing methods to simulate complex astrophysical phenomena, with applications for stockpile stewardship; and

- **Z. John Zhang**, Georgia Institute of Technology, for developing new tools, materials, and applications that advance component microfabrication from non-silicon materials. ❖

NEW Publications

Office of Inspector General (IG) reports: **Synchrotron Radiation Light Sources at Lawrence Berkeley National Laboratory and Stanford Linear Accelerator Center** (DOE/IG-0562); **Advanced Vitrification System** (DOE/IG-0564); **Salt Processing at the Savannah River Site** (DOE/IG-0565); **Sandia National Laboratories Procurement Card Program** (WR-B-02-03). The reports are avail-

able from the U.S. Department of Energy, IG Reports Request Line, 202-586-2744, or at <http://www.ig.doe.gov/>.

The **Fernald Environmental Management Project 2001 Site Environmental Report** provides stakeholders with the results from Fernald's environmental monitoring programs for 2001, along with a summary of the Department of Energy's (DOE) progress toward final

remediation of the site under the 2006-closure plan, Fernald's compliance with environmental regulations, compliance agreements, and DOE policies governing site activities. The report is available at http://www.fernald.gov/Cleanup/Environmental_Monitoring/EnvMon.htm. For additional information, contact Gary Stegner, 513-648-3153 or gary.stegner@fernald.gov. ❖

Y-12 chemists' work may help in finding missing children in the future

A team of chemists at the Department of Energy's Y-12 National Security Complex in Oak Ridge, Tenn., is working to devise fingerprinting and fiber recognition technology that will give crime-scene investigators ways to use every shred of evidence they can gather. The research is being conducted by (l-r) Bob Smithwick, Gerald DeVault, and Linda Lewis of Y-12's Analytical Chemistry group.

The research is focused in two areas. The first is the development of techniques for gathering clearer, more distinguished fingerprints. The second area is developing a fiber analysis technique that separates and measures dye components from just one to two millimeters of a single nylon fiber.

Building on the studies of researcher Michelle Buchanan of the Department's Oak Ridge National Laboratory and Knoxville, Tennessee



Police investigator Art Bohanon, the chemists are developing a technique that will enhance the detection of fingerprints, such as a child's. It is extremely difficult to trace a child by his or her fingerprints because they do not last.

Before ages 7 to 10, children do not secrete sebum, an oily substance that comes from the face, neck, and hair. Sebum is a common cause of

blemish problems, and it also is the reason adult fingerprints stay in place longer than a child's. Children's fingerprints (and adults with freshly washed hands) only contain eccrine sweat, which evaporates, and makes the life span of such a print short. These types of fingerprints are referred to as "clean" prints.

The use of superglue or "cyanocrylate esters" has been an important method for revealing certain fingerprints since the 1980's, but it has two drawbacks.

The method is subject to factors that sometimes make it inconsistent and unpredictable to use, and superglue fumes cause fingerprints to appear white, causing a second step to color the print to show up on light-colored backgrounds. The three researchers are working to understand the basic chemistry of the superglue process so they can improve it. ❖

Standby power initiative – one year later

Executive Order 13221, "Energy Efficient Standby Power Devices," signed by President Bush on July 31, 2001, directs the Federal Government to purchase electronic devices such as computers and cell phones that use minimal standby power to reduce unnecessary electrical consumption and save taxpayer dollars. Standby power refers to the electricity used when products are switched off or not performing their primary purpose. Many products consume between four and seven watts of electricity—or more—even when they appear to be off.

According to Department of Energy (DOE) estimates, as existing products and consumer electronics are replaced with low standby power products during the next six years, U.S. consumers will save approximately \$500 million in cumulative energy costs and enough electricity

to power 630,000 homes for one year. As a result of the President's standby power initiative, DOE estimates that the Federal Government will save about \$25 million in energy costs during the next six years and will save enough electricity to power about 40,000 homes.

The Executive Order directs the Department's Federal Energy Management Program (FEMP), in collaboration with the General Services Administration (GSA), the Defense Logistics Agency, the Environmental Protection Agency/DOE Energy Star® program, and major manufacturers to identify energy efficient products that use minimal standby power. This past year, FEMP sought input from numerous product manufacturers, Federal agencies, and other stakeholders to develop appropriate product categories and testing and certification guidelines.

FEMP focused particular attention on office products and consumer electronics—products bought in large quantities by Federal agencies. To help agencies identify more energy efficient products, recommended standby power levels were developed for a variety of product categories, including computers, monitors, printers, faxes, copiers, and televisions. A list of products and their corresponding standby power levels is available in a continuously developed database at http://www.eren.doe.gov/femp/resources/standby_power.html. FEMP also is working with the Defense Logistics Agency and GSA to integrate standby power product data into their electronic and printed catalogs.

For more information, visit the above web site or contact Alison Thomas, FEMP, 202-586-2099 or alison.thomas@ee.doe.gov. ❖

DOE awards excellence in aviation programs

The aviation programs of the Department of Energy (DOE) and its predecessor agencies have been largely unheralded for over 50 years. Currently DOE has a fleet of about 25 aircraft to help further its missions in such areas as rapid response to nuclear or radiological threats or emergencies, protection and maintenance of key energy transmission and distribution lines, and atmospheric research. Other contracted commercial aviation services also help carry out the missions.

In April 1999, the Secretary of Energy consolidated management of all DOE aircraft under the Director, Office of Aviation Management. The current director is Brig. Gen. Robert G. Jenkins, USAF (Ret). General Jenkins is charged with implementing a program that provides aviation support to the Department with the highest standards of safety, efficiency, and effectiveness.

This year, the Office of Aviation Management sponsored two new annual awards—the DOE Aviation Program Award and the DOE Aviation Management Professional Award—to recognize and promote excellence in aviation management by both individuals and organizations. General Jenkins presented a large perpetual (traveling) trophy and a personal trophy for each award on July 18, 2002, at the DOE Aviation Operations and Safety Workshop at Offutt AFB, Omaha, Neb.

The 2001 DOE Aviation Program Award was presented to the Savannah River Site (SRS) and Wackenhut Services Incorporated, Aviation Operations Division. The SRS team was recognized for its support of the Site's security strategy; the protection of special nuclear material located in critical facilities at the site and in transit; and services to transport response forces, provide command and control, gather intelligence, and provide aerial platform firing.

Albert A. Major II, Aviation Safety Manager, Bonneville Power Administration, received the 2001 DOE Aviation Management Professional Award. Major was the Department's most outstanding contributor to the safety, efficiency, and effectiveness of a Federal flight program. He made contributions to the development of strong, new safety controls and measures to assess risks associated with Federal aviation programs.

The Office of Aviation Management has nominated both DOE winners for the General Services Administration (GSA) Federal Aviation Program and Professional Awards. GSA will announce their award winners on Sept. 19, 2002.

The DOE aviation awards program is managed by Col. David N. Lopez, USAF (Ret), 202-586-6177. Additional information on the Department's aviation programs and the Office of Aviation Management is available at <http://www.ma.mbe.doe.gov/aviation/>. ❖



Displaying the first annual DOE Aviation Management Program Award are (l-r) Robert Green and Ernie Tussie, Wackenhut Services, Inc., Savannah River; Brig. Gen. Robert G. Jenkins, USAF (Ret), Director, DOE Office of Aviation Management; and Stephen Shelt and David Boyle, Savannah River Operations Office.



Albert A. Major II, Bonneville Power Administration, (left) receives the first annual DOE Aviation Management Professional Award from Brig. Gen. Robert G. Jenkins, USAF (Ret), Director, Office of Aviation Management.

COMING Events

October

8 Department of Energy 25th Anniversary Observance Ceremony, Headquarters Forrestal Building, Washington, D.C., in recognition of the establishment of the Department 25 years ago and its official start of operations on Oct. 1, 1977. Former Secretaries of Energy have been invited to join Secretary of Energy Spencer Abraham in this momentous occasion. Events, activities, and

exhibits are planned throughout the month at Headquarters and in the field in observance of the anniversary; a special web page also is planned. More details on the Oct. 8 ceremony and other events will be available soon.

16-18 The Americas Nuclear Energy Symposium 2002, Miami, Fla. Co-sponsored by the Department of Energy's Office of Nuclear Energy,

Science and Technology, and the American Nuclear Society. Coordinated by the Hemispheric Center for Environmental Technology. The symposium provides a forum for a hemispheric discussion and exchange focused on issues related to the future of nuclear energy in the Americas. Additional conference and registration information is available at <http://www.ne.doe.gov> or <http://www.anes2002.org>. ❖

People IN ENERGY

Dale Meade, Head of Advanced Reactor Concepts at the Department of Energy's Princeton Plasma Physics Laboratory (PPPL), is the recipient of the Distinguished Alumni Fellow Award from the University of Wisconsin. The award recognizes a graduate who has had both an outstanding and meritorious career and exceptional service to the university's Physics Department. Before joining PPPL, Meade was a professor of physics at the University of Wisconsin.



Lura J. Powell, Director of the Department of Energy's Pacific Northwest National Laboratory (PNNL), has announced her plans to resign her position, effective Dec. 31, 2002, citing a "desire for more time flexibility and a more balanced life." Powell was named PNNL Director in March 2000 and also has served as a senior vice president of Battelle, which operates the laboratory for the Department. She will leave both positions. Battelle has begun a search for Powell's successor.

Tomás Díaz de la Rubia is the new Associate Director of Chemistry and Materials Science at the Department of Energy's Lawrence Livermore National Laboratory. In this position, he will manage a directorate of more than 520 chemists, chemical engineers, materials scientists, and physicists. Most recently, Díaz de la Rubia was Materials Program Leader for National Ignition Facility Programs and leader of the Laser-Materials Interaction Investment area in the Chemistry and Materials Science Directorate.



Chemist **Leonard Gray** of the Department of Energy's Lawrence Livermore National Laboratory (LLNL) has received the Glenn T. Seaborg Actinide Separations Award. The honor, first awarded to its namesake in 1984, is presented annually by the Actinide Separations Board. The award recognizes a scientist or engineer who conducts basic research in or devel-

ops a new or improved method, technology, or equipment for the recovery, separation, and purification of the actinide elements on a laboratory or production scale. Gray's work spans 33 years at the Department's Savannah River Plant, Savannah River Laboratory, and LLNL.

Micheline A. Devaurs is the new leader of the Decision Applications Division at the Department of Energy's Los Alamos National Laboratory (LANL), a position she has held in an acting capacity since January 2002. Previously, Devaurs held key leadership roles within LANL in the materials and manufacturing, waste management, and environmental sciences programs.

The Savannah River Site Chapter of the National Management Association has recognized two employees of the Department of Energy's Savannah River Site.

Mike Sabbe, Vice President and General Manager, Environmental Restoration Division, was named Executive of the Year; and **Kathy Hatcher**, Manager, Westinghouse Training Program Department, was named Manager of the Year.

Richard Setlow, a senior biophysicist at the Department of Energy's Brookhaven National Laboratory, is the recipient of the 2002 Environmental Mutagen Society Award. Setlow was recognized for his research contributions to the field of environmental mutagenesis, which involves the study of how environmental agents lead to DNA damage and how that damage is repaired.

The United Kingdom's Royal Society, the oldest continuously existing scientific academy in the world, has elected **Alexander Pines** a Foreign Member for 2002. Pines is a Faculty Senior Scientist in the Materials Sciences Division of the Department of Energy's Lawrence Berkeley National Laboratory. The Royal Society recognized Pines for his pioneering contributions to the development of nuclear magnetic resonance spectroscopy.

David Sholl, a research associate in the Office of Science and Technology at the Department of Energy's National Energy Technology Laboratory and Assistant Professor of Chemical Engineering at Carnegie Mellon University, is the recipient of the Camille-Dreyfus Teacher-

Scholar Award by the Camille and Henry Dreyfus Association Inc. The national award recognizes commitment to education and continuing contributions to research and teaching.

Gary Rothenberger has been named Director of the Research Reactors Division at the Department of Energy's Oak Ridge National Laboratory (ORNL). Rothenberger served as the division director during the past two years under a contract with Duke Engineering and Services for management of ORNL's High Flux Isotope Reactor. Upon recently assuming full management responsibility for the reactor, ORNL management and operating contractor UT-Battelle selected Rothenberger for the director position. ❖



The Yucca Mountain Project, under the jurisdiction of the Department of Energy's (DOE) Office of Civilian Radioactive Waste Management, recently reached a major safety milestone—two million employee hours worked without a day away because of an injury. Bechtel SAIC Company, LLC, (BSC) the Yucca Mountain Project managing and operating contractor, and its subcontractors were recognized by DOE at a celebration in June 2002. Displaying the award are (l-r) Lee Fossum, BSC Site Manager; Suzy Mellington, Assistant Manager, DOE Office of Project Execution; and Ken Hess, BSC President and General Manager. ❖

Milestones

YEARS OF SERVICE

September 2002

Headquarters

Chief Information Officer -

Michael A. Tiemann (30 years). **EIA** - Diane L. Jackson (35), Eugenia M. McCollam (35), Parnese Goss (25), James R. Knaub, Jr. (25), William A. Trapmann (25). **Energy Efficiency & Renewable Energy** - Rebecca R. Dyer (30), Veronica D. Bellamy (25). **Envir. Management** - David E. Mathes (30), Lana B. Nichols (30). **Fossil Energy** - Curly A.Y. Gilbert (35), Ann M. Ducca (30).

FERC - Gilbert A. Avila (35), M. Patricia Enoch-Johnson (35), Malcolm W. McDanal (35), Jasper B. Cameron (30), Don A. Chamblee (30), David J. Iacono (30), Scott E. Koves (30), Mary R. Sherwood (30), Joseph P. Cholka (25), Etta L. Foster (25), Merrill F. Hathaway, Jr. (25), Teofilo P. Mabini (25), Diane L. Naca (25), Linda M. Patterson (25), Richard A. Rosell (25), Joyce A. Turner (25).

General Counsel - Robert Newton (30), Thomas B. De Priest (25), Gustav Goldberger (25), Steven R. Miller (25), Ralph C. Oser (25). **Hearings & Appeals** - Beryl S. Gilmore (30). **Intelligence** - Gilbert M. Arriola (35), David M. Rohrer (25). **Management, Budget & Evaluation** - Thomas A. Chambers (35), Bettie J. Atcherson (30), Richard G. Lewis (30), James E. Norris (30), Xavier J. Harris (25), Katherine M. Tyler (25), Stephen Zvolensky (25).

NNSA - Raymond F. Greenberg (35), Gary K. Goldberg (30), Anthony R. Lane (30), William E. Langston (30), Michael F. Wenz, Jr. (25). **Policy & International Affairs** - Jacqueline M. Caul (30), Emmaline Gilliard (30). **Radioactive Waste** - William R. Tunnell (25). **Science** - Julia H.

Daniel (35), Robert J. Gottschall (25), Henrietta L. Thompson (25).

Field

Albany Research Center - David N. Nilsen (30). **Albuquerque/NNSA** - Margaret S. Cooka (30), John H. Cowan (30), Edwin R. Christie (25), N. Grace Crook (25), Patsy J. Garcia (25), Jeannie G. Lozoya (25), Jose G. Molina (25), Emmanuel Olono (25), Jimmy D. Spencer (25).

Bonneville Power - George S. McGowan (40), Nick Christmas III (35), Leo D. Mock (35), Cheryl A. Speer (35), Terry L. Doern (30), Dennis L. Hoxworth (30), Richard J. Itami (30), Carol J. Johnson (30), Mario D. Vacca (30), Daniel T. Hollingsworth (25), James A. Jellison (25), Carolyn A. Richardson (25), Robert A. Rogers (25), Rollie E. Sivyver (25), Bonita R. Smulski (25).

Chicago - Mary L. Zambrano (40), Barbara J. Shelby (35), Therese G. Williams (35), Heidi K. Ramirez (30), Barbara E. Clouse (25), Mary E. Downey (25), Steve Ludwig (25). **Idaho** - Margaret W. Fisher (25), Merrie C. Ott (25). **NETL** - Edward P. Ladner, Jr. (35), Charles W. Byrer (30), John S. Halow (25), Edgar B. Klunder (25).

Nevada - Carl P. Gertz (25). **Nevada/NNSA** - Michael D. Remington (25). **Oak Ridge** - Willis Davis (40). **Oakland/NNSA** - Edward M. Ballard (30), Laurence B. McEwen (30), Harvey W. Lee (25), Richard A. Scott (25). **Ohio** - Wayne E. Pasko (30), Carolyn D. Garnes (25). **Richland** - Cesar E. Collantes (30), James F. Thompson, Jr. (30), Theodore N. Turpin, Jr. (30), Roger F. Christensen (25).

Rocky Flats - Gary P. Morgan (35), Harold G. Armenta (30), Richard G. Bartlett (30), Gary D. Noss (30).

Savannah River - Carolyn M. Reynolds (30), Lisa S. Campbell (25), Howard E. Hastings (25), Arnold R. McLain, Jr. (25). **Southwestern Power** - Percy G. Butler, Jr. (25), Gerald D. Chaffee (25), Gregory G. Happle (25).

Strategic Petroleum Reserve - Marion M. Bonvillain (25), Rosella B. Mayeux (25). **Western Area Power** - Joseph F. Bossert (30), Richard L. Knauss (30), Paul H. Lavalley, Jr. (30), Dorothy C. Meyer (30), Earl F. Cass (25), Janis C. Garrett (25), Ronald E. Padgett (25), Doris I. Page (25), Robert S. Toenjes (25). **Y-12 Site/NNSA** - Richard E. Green (25).

RETIREMENTS

July 2002

Headquarters

Energy Efficiency & Renewable Energy - David H. Raab (32 years). **FERC** - William A. Murafka (33). **Management, Budget & Evaluation** - Timothy M. Dirks (32).

Field

Chicago - Alvin L. Young (13). **Oakland/NNSA** - Debra J. Hills (29).

August 2002

Headquarters

FERC - Cynthia A. Frey (13). **Hearings & Appeals** - Marcia B. Carlson (30). **Management, Budget & Evaluation** - Richard R. Laroche (31).

Field

Bonneville Power - Robert M. Doty (19), Robert W. Jackson (30), Lynn A. Kerzman (34), Lyle B. Klein (30). **Nevada/NNSA** - Thomasine E. McDaniel (23). ❖

DOE atmospheric research expands to Australia

On July 30, 2002, United States and Australian officials formally commissioned the Department of Energy's (DOE) newest Atmospheric Radiation Measurement (ARM) site in Darwin, Australia. The location will enable scientists to collect new data important to refining computer models that simulate climate change.

This is the fifth site established since the Department created the ARM program in 1989 and is the first established with an international research partner. The other ARM sites are located in the Southern Great Plains and the North Slope of Alaska in the United States and on the islands of Manus and Nauru in the Tropical Western Pacific. The Darwin Site was established through a collaborative agreement between DOE and the Australian Bureau of Meteorology's Special Services Unit.

The ARM program, managed by the Department's Office of Science, works to improve the atmospheric radiation and cloud physics in global climate models, thereby improving the simulations of climate change. Clouds are the single largest factor in regulating the absorption of solar energy by the earth and an important factor in regulating the loss of infrared energy from the earth. Additional information is available at <http://www.arm.gov>.

September 2002

AROUND DOE

DOE, EPA, Texas agree on Pantex cleanup by 2008

Officials from the Department of Energy (DOE), Environmental Protection Agency (EPA), and State of Texas have signed a Letter of Intent to enter into an agreement to accelerate cleanup at the Department's Pantex Plant in Amarillo, Texas. Under the plan, the parties will work to complete cleanup activities by 2008.

The agreement was reached under the Department's Environmental Management Accelerated Cleanup Program. The Department is setting aside \$5 million under the Accelerated Cleanup Reform Account for Pantex, which would provide a total of \$16 million for the site in Fiscal Year 2003.

The Pantex Letter of Intent and earlier pacts signed with other DOE sites are available at <http://www.em.doe.gov>, click on "Cleanup Reform Initiative" under "Hot Topics."

Final rule issued in worker compensation program

The Department of Energy (DOE) issued on Aug. 8, 2002, the final rule implementing its program established by Part D of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) of 2000. The rule sets forth procedures to help DOE contractor and subcontractor employees who have become ill from exposure to toxic substances while working at DOE facilities seek and obtain state workers' compensation benefits.

DOE's program is separate and distinct from, and contains different standards, requirements, and benefits than, the program managed by the Department of Labor (DOL) that was established by a different part of the Act. The DOL program is required by law to address workers with certain illnesses—beryllium disease, radiation-induced cancers, and silicosis—and provides direct Federal payments to eligible workers, which may include Federal employees.

DOE and DOL have established a network of Resource Centers at all major DOE sites where workers and their families can get help filling out claim forms for both programs. Workers interested in applying to DOE for assistance may call the toll-free hotline at 1-877-447-9756. Additional information, including the final rule, is available at <http://tis.eh.doe.gov/advocacy>. ❖

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Department of Energy (PA-40)
Washington, DC 20585

Official Business