July-September 2010

Welcome to the July–September 2010 issue of the U.S. Department of Energy (DOE)

Office of Legacy Management (LM) Program Update. This publication is designed to provide a status of activities within LM. Please direct all comments and inquiries to LM@hq.doe.gov.

Goal 1

Public Access Established for the Dr. Modesto Iriarte Technological Museum in Rincón, Puerto Rico

On August 2, 2010, the U.S. Department of Energy (DOE) Office of Legacy Management (LM) and the Puerto Rico Electric Power Authority (PREPA) finalized a formal letter of agreement that allows for controlled public access to the Dr. Modesto Iriarte Technological Museum (formerly know as the Boiling Nuclear Superheater (BONUS) Decommissioned Reactor Site) in Rincón, Puerto Rico.

The Dr. Modesto Iriarte Technological Museum provides the Puerto Rican citizens and public with one of the best available educational examples of a demonstration reactor. The museum also includes

Legacy Management Goals

Goal 1: Protect human health and the environment through effective and efficient long-term surveillance and maintenance.

Goal 2: Preserve, protect, and make accessible legacy records and information.

Goal 3: Support an effective and efficient work force structured to accomplish Departmental missions and assure continuity of contractor worker pension and medical benefits.

Goal 4: Manage legacy land and assets, emphasizing protective real and personal property reuse and disposition.

Goal 5: Improve program effectiveness through sound management.

See page 12 for a map of LM sites.

See page 13 for a more detailed version of LM's goals.



historical and cultural interpretive exhibits and documentation of the colonization and development of Puerto Rico.

The museum consists of the former BONUS reactor building and four other supporting building structures. The BONUS reactor is an enclosed, domed building

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Goal 5

Draft LM Strategic Plan Available for Review

The draft *U.S. Department of Energy Office of Legacy Management Strategic Plan: 2010–2020* is available for public comment through November 30, 2010. The mission, vision, and operating principles and the goals and objectives of the draft Strategic Plan are included in this edition of the *Program Update* on page 5.

Goal 4 Renewable Energy

The U.S. Department of Energy (DOE) contributes to the prosperous future of the nation by working to provide energy that is clean, abundant, reliable, and affordable. Examples of renewable energy are wind energy, solar power, hydropower, biomass power, and geothermal power. Examples of nonrenewable energy are fossil fuels such as coal, oil, and natural gas.

The Office of Legacy Management (LM) is committed to excellence in environmental stewardship and continues to develop and implement innovative uses of renewable energy sources at its many sites across the country. LM's Renewable Energy Program encourages the use of on-site renewable energy sources and the purchase of green energy credits.

An example of renewable energy being used to support LM's mission is the frequent use of solar energy to power stations that operate as part of the Systems Operation and Analysis at Remote Sites program, also known as SOARS. SOARS allows site managers and scientists to observe real-time data from ongoing monitoring operations at remote locations. There are approximately a dozen LM sites that utilize solar energy



This SOARS monitoring station at the Rifle Disposal Site is powered by solar energy.



The solar panel that generates electricity to operate a pump for the Visitors Center's zero-discharge wastewater system.

to power monitoring equipment, metrological stations, and data transmitting stations.

In keeping with DOE's emphasis on using renewable energy sources, there were recent renewable energy demonstration projects undertaken at the Fernald Preserve in Ohio and the Weldon Spring, Missouri, Site. These demonstration projects included the installation of a renewable energy system with a corresponding outdoor education reading rail, installation of new renewable energy displays for the Fernald Visitors Center and the Weldon Spring Interpretive Center, and establishment of a corresponding middle-school curriculum and a renewable energy brochure. A new renewable energy page was also added to the LM public website (www.LM.doe.gov).

The Fernald Preserve has introduced the use of solar energy in two locations. A solar panel charges a battery that illuminates the site's access sign at night, and a solar panel at the Visitors Center's biowetland now supplies clean power to the electrical pump in the system. These two new solar projects and the Visitors Center were part of this year's Green Energy Ohio Solar Tour. The Fernald Preserve was one of hundreds of sites around the state offering the public a chance to see clean-energy technologies up close and talk with people living and working with them. A new renewable

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Public Access Established for the Dr. Modesto Iriarte Technological Museum in Rincón, Puerto Rico

that consists of three levels: the mezzanine (upper level), the reactor (main level), and the basement (lower level). The reactor and baseline levels of the reactor building are now open for guided public tours by PREPA.

The BONUS nuclear power facility was originally developed as a prototype nuclear power plant to investigate the technical and economic feasibility of the integral boiling-superheating concept. It was the eighth nuclear plant constructed in the United States. The BONUS reactor first achieved a controlled nuclear chain reaction on April 13, 1964. The reactor underwent a series of criticality tests and then was operated

experimentally at various power levels, first as a boiler and later as an integral boiler-superheater. Operations were terminated in June 1968 because of technical difficulties requiring high-cost modifications. Final decommissioning of the facility was completed in 1970. All residual radioactive materials remaining were isolated or shielded to protect site visitors and workers.

Although the Dr. Modesto Iriarte Technological Museum is owned by PREPA, DOE still retains title to remaining radioactive materials at the BONUS site. LM will continue to have oversight responsibility for long-term surveillance and maintenance activities.

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Renewable Energy

energy display in the Visitors Center was unveiled as part of the solar tour.

The Visitors Center's zero-discharge wastewater system, where water, plants, microorganisms, and the environment interact to treat 100 percent of the building's wastewater, is completely "off the grid" and self-sustaining, with the installation of a solar panel that generates electricity to operate the one pump in the system.

At the Weldon Spring Site, a wind turbine was installed adjacent to the Interpretive Center this summer. The wind turbine stands 45 feet tall, has a diameter of 6 feet, and generates power at wind speeds as low as 2 mph. This particular wind turbine was selected for its unique ability to generate power at low wind speeds as the St. Louis area is not suitable for a



The Weldon Spring Site wind turbine.

traditional wind turbine, which would typically require wind speeds of 6 to 8 mph before generating power. The Weldon Spring wind turbine is used to power the renewable energy display in the Interpretive Center.

Goal 2 Legacy Management Business Center Awarded Second Energy-Efficiency Award



U.S. Department of Energy (DOE) Secretary Steven Chu announced on August 20, 2010, that the DOE's Legacy Management Business Center (LMBC), located in the West Virginia University Research Park in Morgantown, West Virginia, has been awarded a second Leadership in Energy and Environmental Design (LEED) Gold certification by the United States Green Building Council, making it the first double-gold building in West Virginia. The first Gold certification was awarded on July 13, 2010, to recognize the sustainable design and construction. The latest Gold award recognizes the building's features in the Commercial Interiors category.

"Energy efficient buildings hold vast potential to reduce our energy use and lower bills for America's families and businesses," said Secretary Chu. "By demonstrating the benefits of energy efficiency in our facilities, the Federal government can lead the nation toward more sustainable building practices, while reducing the Federal carbon footprint and saving money for taxpayers."

The primary mission for the Office of Legacy Management is to fulfill the Department's post-closure responsibilities and ensure the future protection of human health and the environment. The LMBC operations contribute to the success of this mission by preserving, protecting, and storing legacy records for the Department's closed sites.

The LMBC was originally planned to obtain LEED Silver certification. However, to demonstrate commitment to the principles established in President Obama's Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, DOE decided to improve the design to meet the higher standard of LEED Gold. A commemoration plaque marking the award was received on August 9, 2010, and is now mounted in the LMBC.

To attain this goal, the LMBC was constructed using recycled-content materials, Forest Stewardship Council (FSC)-certified wood, low-emitting materials, and regional materials whenever possible. The integrated project team that worked on this effort included the landowner, developer, architect, LEED consultant, construction contractor, representatives from the U.S. General Services Administration, and DOE. All stakeholder organizations were given an opportunity to provide input early in the design process.

The health of the public and the environment, sustainable site development, water savings, energy efficiency, and indoor environmental quality guided the design process and continue to guide facility operations. ❖

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Draft LM Strategic Plan Available for Review

I. MISSION, VISION, AND OPERATING PRINCIPLES

Mission Statement

The mission of the U.S. Department of Energy (DOE or Department) Office of Legacy Management (LM) is to fulfill the Department's post-closure responsibilities and ensure the future protection of human health and the environment.

Vision

- The Department's legacy work force, communities, and the environment are well-protected and served.
- Consistent and effective long-term surveillance and maintenance protects people and the environment.
- The public has easy access to relevant records and information.
- Because we work together, stakeholders, Tribal Nations, and state and local governments trust us.
- The Department's former contractor work force receives mandated benefits on time.
- Work force restructuring actions are conducted fairly and in accordance with requirements; contractors who lose their jobs get help finding new work.
- People are treated fairly and have meaningful involvement.

Operating Principles

Six principles guide the implementation of this strategic plan:

- We operate safely with protection of human health (worker and public) and the environment as a priority.
- We are serious about our responsibility, as a Federal trustee, to safeguard land and resources.
- We recognize that legacy activities are local. We are flexible in tailoring site-specific solutions to short- and long-term issues facing our sites and the affected communities.
- Stakeholder involvement is integral to our operations: we can succeed only by doing

things with our communities and Tribal Nations, not to them.

- We operate in an open and transparent manner.
- We are fiscally conservative in managing the taxpayer's money.

II. SUMMARY OF GOALS AND OBJECTIVES

Protect human health and the environment (Goal 1)

Objectives

- 1. Comply with environmental laws and regulations.
- 2. Reduce health risks and long-term surveillance and maintenance (LTS&M) costs.
- 3. Partner with other federal programs to make environmental remedies better and last longer.
- 4. Oversee DOE implementation of Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

Preserve, protect, and share records and information (Goal 2)

Objectives

- 1. Meet public expectations for outreach activities.
- 2. Protect records and make them accessible.
- 3. Protect and ensure access to information.

Meet commitments to the contractor work force (Goal 3)

Objectives

- 1. Safeguard contractor pension plans.
- 2. Fund contractor health and life insurance.
- 3. Oversee compliance with DOE's work force restructuring policy.

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Draft LM Strategic Plan Available for Review

Optimize the use of land and assets (Goal 4)

Objectives

- 1. Optimize public use of Federal lands and properties.
- 2. Transfer excess government property.
- 3. Improve domestic uranium mining and milling operations.

Sustain management excellence (Goal 5)

Objectives

- Renew LM's designation as a high performing organization (HPO).
- 2. Implement LM's *Human Capital Management Plan*.
- 3. Operate in a sustainable manner and reduce LM's carbon footprint.

The complete Draft Strategic Plan can be reviewed and commented on at: http://www.LM.doe.gov/LM_Program/Strategic Plan.aspx.

For a hard copy of the Draft Strategic Plan, send a written request to

Ms. Brenda Waters, Public Participation Specialist U.S. Department of Energy Office of Legacy Management 1000 Independence Ave SW Washington, DC 20585

Goal 2

LM Assumes Responsibility for Yucca Mountain Records and Information

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) has taken responsibility for Yucca Mountain Project (YMP) records and information with the closure of the DOE Office of Civilian Radioactive Waste Management.

On March 3, 2010, DOE filed a motion with the Nuclear Regulatory Commission to withdraw the license application for a high-level nuclear waste repository at Yucca Mountain with prejudice. With that action, DOE assigned LM responsibility for YMP records, information systems, and the Licensing Support Network.

LM is committed to preserve, protect, and make accessible legacy records and information. To ensure accomplishment of this important goal, a plan was created to define and implement necessary YMP-related records transition activities.

YMP records will be maintained according to Federal regulations and DOE guidance in a new, state-of-the-art National Archives and Records Administration-certified records facility at the LM Business Center (LMBC) in Morgantown, West Virginia. To date, LM has received approximately 2,400 cubic feet of YMP record material at the LMBC warehouse for long-term storage and preservation. An additional estimated 8,500 cubic feet of record material is scheduled to be received at the warehouse when transition activities are completed. ❖

Phone: (202) 586-3559 *

Goal 1 Environmental Justice

Community Leaders Institute

On August 20-21, 2010, the U.S. Department of Energy (DOE) and the Medical University of South Carolina sponsored a Community Leaders Institute (CLI) at Tougaloo College in Jackson, Mississippi. CLIs help community leaders address environmental and other issues in their communities. This CLI presented an opportunity for community and business leaders to engage in a dialogue among representatives from Federal, state, and local government to promote change in the areas of youth, community development/housing, health disparities, economic development, and transportation.

Reinvigoration of Environmental Justice Interagency Working Group (EJIWG)

On Wednesday, September 22, 2010, Under Secretary Kristina Johnson and Environmental Justice (EJ) Program Manager Melinda Downing attended a White House meeting of agency principals to reaffirm the Obama Administration's commitments to Executive Order 12898. Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and develop interagency and intra-agency EJ activities that each department can integrate into existing activities or conduct in the future. DOE presented three of its current EJ activities that could be conducted as interagency collaborations, and one potential interagency project that DOE has volunteered to lead. The goals of the meeting were for Federal agencies to reaffirm their commitment to EJ, to help agencies achieve their EJ goals, and to get the necessary resources to accomplish this.

Minority Serving Institutions Community of Partners Council (MSI-COPC) Minority Serving Institutions Technical Assistance and Capacity Building Conference in Dallas, Texas, September 20–23, 2010.

In September, the U.S. Department of Energy cohosted a technical assistance and capacity-building conference along with the U.S. Department of Commerce, U. S. Environmental Protection Agency,



Community Leaders Institute at Tougaloo College. Left to right, Dr. Glenda Glover, Harold Mitchell, Jere "Trey" Hess, Dr. John Perkins, and Mr. Byron C. Marshall.



Environmental Justice Interagency Working Group principles meeting at the White House.

U.S. Nuclear Regulatory Commission, U.S. Agency for International Development, National Nuclear Security Administration, Peace Corps, and U.S. Department of Defense. The conference was aimed at Minority Serving Institutions (MSI) such as Hispanic-Serving Institutions, Asian American and Native American Pacific Islander-Serving Institutions, Historically Black Colleges and Universities, Tribal Colleges and Universities, Alaskan Native colleges and universities, and Hawaiian Native colleges and universities. The theme of this year's conference was "Creating a Presence – Giving a New Innovative Perspective."

Goal 5

Office of Legacy Management Welcomes New Employees

Jason Nguyen joined the Environment Team of the Office of Legacy Management on August 30, 2010, as a site manager. He graduated in May with a bachelor's degree in chemistry, with minors in biology and environmental studies from Truman State University in Kirksville, Missouri. He completed research internships through both the University of Minnesota and the University of Michigan. His research experience pertains to atmospheric chemistry and environmental monitoring. Jason's duties as a site manager will include contract oversight for various Uranium Mill Tailing Radiation Control Act sites.

Ed "Doc" Parks joined the Office of Legacy Management on September 13, 2010, as a program analyst in the Records Management Program. He earned his doctorate in public administration from the University of La Verne, and holds master's degrees in human resource management from Central Michigan University and national security strategy from National Defense University, and a bachelor's in elementary education from Trenton State College.

Doc has over 27 years of active duty military service with the U.S. Air Force (USAF), serving in a broad range of command and staff positions in nuclear operations policy, budgeting, training, and program management. He has worked for HQ USAF, the Joint Staff, the Defense Threat Reduction Agency, and numerous USAF units. He has commanded a missile operations squadron, a missile operations group, and most recently served as the professor of Aerospace Studies at West Virginia University.

Deborah L. Barr has joined the Grand Junction Office of Legacy Management team as the property reuse manager. She comes from the U.S. Department of Energy's (DOE) Office of Civilian Radioactive Waste Management office in Las Vegas, Nevada, where she functioned as the Regulatory Affairs Division member responsible for evaluating the licensability of the proposed science and postclosure elements of repository performance on the Yucca Mountain Transition Project. Her major responsibilities have included assisting DOE in planning, developing, implementing, and managing work scope to support the development of a facility to manage and dispose of the nation's spent nuclear fuel and high-level radioactive waste.

Ms. Barr has 20 years of management and technical experience in the U.S. military, Federal workforce, and the university community including experience in project management, science and geologic testing, modeling, mapping, data collection, development of policy guidance, intelligence gathering activities, and teaching. She is a registered professional geologist in the state of Idaho and has degrees in geology from the University of California, Los Angeles and Brigham Young University. ❖

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Environmental Justice

The conference was designed to inform the MSI community about partnership opportunities, compliance and regulatory requirements, innovation in commercialization and funding opportunities with Federal agencies. This conference provided the faculty, staff, and representatives from the MSIs an opportunity to interact with program officers and staff members from

the sponsoring agencies. Institutions also learned how to expand their participation in Federally funded programs and compliance with required Federal financial assistance programs. This year our team of experts added new technical assistance workshop sessions for Creating a Presence. ❖

Goal 1

Natural Gas Sampling at the Gasbuggy, New Mexico; Rio Blanco and Rulison, Colorado; Nuclear Gas Sites

The Gasbuggy, New Mexico, and Rio Blanco and Rulison, Colorado, sites are locations where nuclear devices were detonated underground in the 1960s to stimulate natural gas production. Because no Federal statute formally regulates them, inspections and environmental sampling are developed based on needs and agreements with interested parties. As a result, the U.S. Department of Energy (DOE) Office of Legacy Management (LM) manages protectiveness in coordination with Federal and state agencies with common missions. The level of energy development in the area and potential risks to human health and the environment dictates the environmental sampling frequency. A unique feature of these sites is that they require sampling of produced natural gas and condensate at wells installed near the emplacement locations (surface ground zero).

The primary contaminant of concern in gas samples is tritium. Gas sampling includes collecting a sample of the produced gas and condensate (cooled vapor) which are then sent for laboratory analysis. To date, DOE has not had to address results that suggest contaminants are present in the natural gas or condensate. The LM site managers continue to successfully work with energy developers and stakeholders to ensure this is a timely and seamless process.

LM has accommodated this unique need by refining the Nevada Offsites Program. This program continues to technically evolve to better target potential exposure locations and understand distinct constituent behaviors. Program advances keeps site managers equipped with the most current information to address site issues and manage risk. ❖



Gas wellhead apparatus including separator, condensate tank, condensate pump, and associated valving, at a natural gas well in the San Juan Basin near the Gasbuggy site in New Mexico.

Goal 4

Students from Native American Environmental Youth Camp Tour Tuba City, Arizona, Site

The Tuba City, Arizona, groundwater treatment plant at the site of the Rare Metals Corporation uranium mill was visited by a group of 26 students and teachers on August 6, 2010. The students were a part of a summer Native American Environmental Youth Camp program hosted by the Land Grant Office and the U.S. Forest Service and operated through Diné College. The tour consisted of a site visitor briefing and treatment process overview followed by a walking tour of the plant grounds. Specific focus was given to the solar photovoltaic and solar thermal processes that provide renewable energy for the site. The students completed their tour with an off-site talking circle style discussion focused on the environmental cleanup process and goals.

A similar tour was provided to a group of 10 college students and a professor from the University of North Florida on July 20, 2010. This tour followed the same format with an initial visitor briefing, discussion of treatment operations, and a walking tour of the plant grounds. The students asked



specific questions about process flow rates and the treatment equipment. They concluded the tour by observing the Grand Junction, Colorado, well sampling crew in operation and mapping some of the site monitoring wells with handheld GPS units.

Save the Date	
October 14–17, 2010	Community Leaders Institute Johnson City (Charleston), South Carolina
November 1–4, 2010	National Training on Toxic Release Inventory and Environmental Justice Washington, DC
November 3–5, 2010	U.S. Department of Energy's Annual Training Conference Albuquerque, New Mexico
November 10–13, 2010	Fourth Annual National Conference on Health Disparities Philadelphia, Pennsylvania
November 16–18, 2010	Long-Term Surveillance and Maintenance Conference Grand Junction, Colorado
April 27–29, 2011	Fifth Annual State of Environmental Justice in America Conference Washington, DC

Goal 1

2010 Long-Term Surveillance and Maintenance Conference

Managing Today's Change, Protecting Tomorrow's Future; A Global Perspective on LTS&M

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is excited to host the 2010 Long-Term Surveillance and Maintenance Conference in Grand Junction, Colorado. The conference dates are November 16–18, 2010, at the Two Rivers Convention Center.

The conference will provide technical information, education, and networking opportunities for representatives from government agencies, regulatory agencies, political offices, tribal groups, and other stakeholders involved in long-term surveillance and maintenance (LTS&M) of remediated sites and facilities.

There will be several presenters at the conference including three keynote speakers. Kristina Johnson, the current DOE Under Secretary, will open the conference; Dr. Richard Murphy, Director of Science and Education at the Ocean Futures Society, will discuss the persistence of contaminants in the environment and the long-term repercussions of the

BP Deepwater Horizon oil spill in the Gulf of Mexico at the luncheon on Tuesday; and at Wednesday's luncheon, Jeff Baker, the Director of Office of Laboratory Operations at the DOE Golden Field Office, will discuss energy-efficient buildings.

Two optional tours are offered to conference attendees. On Monday afternoon, there is a tour to Rifle to see the disposal and processing sites and the Rifle Integrated Field Research Challenge site. A tour to the Grand Junction Disposal Site is offered on Thursday afternoon.

Hotel reservations should be made by October 14, 2010, to take advantage of hotel room blocks at the Federal per diem rate at several local hotels. Two of the hotels, the Hampton Inn and the Main Street Suites, are within walking distance of the Two Rivers Convention Center.

For more information and to register, visit the conference website at

http://www.LM.doe.gov/ltsm_conference/index.htm. http://www.LM.doe.gov/ltsm_conference/index.htm.

Hampton Inn

205 Main Street Grand Junction, Colorado 81501 Phone: (970) 243-3222

Hilton DoubleTree Hotel

743 Horizon Drive Grand Junction, Colorado 81506

Phone: (970) 241-8888

Holiday Inn

2751 Crossroads Boulevard Grand Junction, Colorado 81506 Phone: (888) 465-4329

Main Street Suites

225 Main Street Grand Junction, Colorado 81501 Phone: (970) 242-2525

Marriott Residence Inn

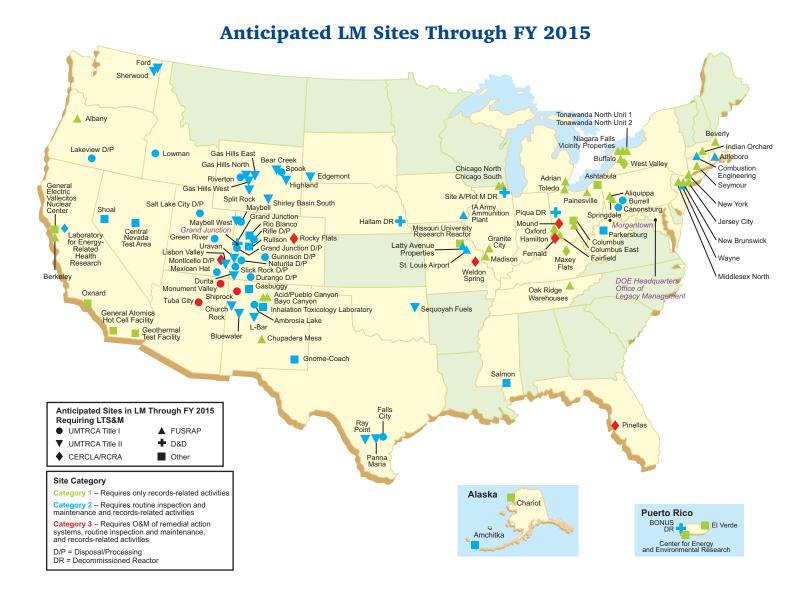
767 Horizon Drive Grand Junction, Colorado 81506 Phone: (970) 263-4004

Marriott Courtyard Grand Junction

765 Horizon Drive

Grand Junction, Colorado 81506

Phone: (970) 263-4414



As environmental stewards, LM is continually seeking opportunities to protect tomorrow's future. One simple step we can take toward improving environmental consciousness is to distribute the *Program Update* newsletter via e-mail instead of sending a printed copy.

Please send your e-mail address and your first and last name to LM@hq.doe.gov so that we can update our database.

Thank you for your assistance.

Legacy Management Goals



Goal 1: Protect human health and the environment through effective and efficient long-term surveillance and maintenance. This goal highlights DOE's responsibility to ensure long-term protection of people, the environment, and the integrity of engineered remedies and monitoring systems.

Goal 2: Preserve, protect, and make accessible legacy records and information. This goal recognizes LM's commitment to successfully manage records, information, and archives of legacy sites under its authority.





Goal 3: Support an effective and efficient work force structured to accomplish Departmental missions and assure continuity of contractor worker pension and medical benefits. This goal recognizes DOE's commitment to its contracted work force and the consistent management of pension and health benefits. As sites continue to close, DOE faces the challenges of managing pension plan and health benefits liability.

Goal 4: Manage legacy land and assets, emphasizing protective real and personal property reuse and disposition. This goal recognizes a DOE need for local collaborative management of legacy assets, including coordinating land use planning, personal property disposition to community reuse organizations, and protecting heritage resources (natural, cultural, and historical).





Goal 5: Improve program effectiveness through sound management. This goal recognizes that LM's goals cannot be attained efficiently unless the Federal and contractor work force is motivated to meet requirements and work toward continuous performance improvement.

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Ms. Brenda Waters U.S. Department of Energy Office of Legacy Management 1000 Independence Avenue, SW Washington, DC 20585 Fax: (202) 586-1540

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