



Program Update

April–June 2012

Welcome to the April–June 2012 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

U.S. Representative Scott Tipton Visits Grand Junction Facility

U.S. Representative Scott Tipton of Colorado’s 3rd Congressional District visited the U.S. Department of Energy Office of Legacy Management (LM) Grand Junction, site in Colorado in early May. The Congressman, accompanied by his representatives Brian Meinhart and Richard Schoenrad, requested to visit the site as part of a recent trip to western Colorado in an effort to gain an understanding of the work LM conducts and to meet some of the employees who perform the work.



U.S. Representative Scott Tipton is greeted by Jalena Dayvault and staff.

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Goal 1

LM Management and Staff Tour the Weldon Spring Site Joined by Under Secretary Thomas P. D’Agostino

U.S. Department of Energy (DOE) Office of Legacy Management (LM) staff arrived at the Weldon Spring, Missouri, Site, on Wednesday, June 13, 2012, for a series of tours organized by Ken Starr, LM Weldon Spring Site Manager. A security briefing was given by Joe Desormeau, LM Safety Officer, Office of Site Operations, upon arrival.

LM staff were joined by Under Secretary Thomas P. D’Agostino, who provided remarks to LM staff and answered questions. He acknowledged the important work that LM is doing and his commitment to support LM. He also met with many of the staff one-on-one.



Under Secretary Thomas P. D’Agostino addressed the LM staff during the tour at Weldon Spring site.

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U.S. Representative Scott Tipton Visits Grand Junction Facility

Jalena Dayvault, LM Site Manager and General Engineer, presented an overview of the LM program and discussed details of LM's presence and responsibilities in Colorado's 3rd Congressional District. LM has interests in 18 disposal and processing sites within Mr. Tipton's district. Mr. Tipton was particularly interested in the work and issues associated with the Durango, Naturita, Rulison, Slick Rock, and Uravan sites, as he grew up in and currently resides in Cortez.

Mr. Tipton and his representatives were given a tour of the Grand Junction site by Mike Widdop of the S.M. Stoller Corporation. Mr. Widdop described the unique history of the site and the Grand Junction area. The tour also included the onsite uranium calibration facility.

Mr. Tipton said he left with an understanding of LM and its obligation to protect human health and the environment in western Colorado and at all LM sites throughout the United States. ❖



U.S. Representative Scott Tipton meets in the Mt. Garfield conference room at the Grand Junction site.

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LM Management and Staff Tour the Weldon Spring Site Joined by Under Secretary Thomas P. D'Agostino

Thomas Pauling, Director of LM Site Operations, gave comments to the staff during the tours. Mr. Pauling oversees all LM work associated with site operations, such as groundwater sampling and monitoring, environmental concerns, remediation, radiation, Uranium Mill Tailing Remedial Action Project activities, and long-term surveillance and maintenance.

The Weldon Spring Site Interpretive Center is part of DOE's long-term surveillance and maintenance activities. The Center serves to communicate the historical legacy of the site and provide educational and research opportunities for current and future generations. There are many historical exhibits, including one describing Howell Prairie, the 150-acres surrounding the disposal cell that has been planted with over 80 species of native prairie grasses and wildflowers. Howell Prairie is one of the largest of its kind in the St. Louis area. DOE designated the site as an environmental cleanup effort known as the Weldon Spring Site Remedial Action Project.



Groundwater well monitoring demonstration during the tour at the Weldon Spring site.

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Goal 1

DOE Awards the S.M. Stoller Corporation LMS Team with VPP Star Status

On April 11, 2012, Mr. David Geiser, U.S. Department of Energy (DOE) Office of Legacy Management (LM) Director, presented the DOE Voluntary Protection Program (DOE-VPP) Star flag and Star certificate to the S.M. Stoller Corporation Legacy Management Support (LMS) Team. Star status is the highest level of recognition that a contractor can obtain in DOE-VPP. DOE-VPP has three levels of recognition; Star, Merit, and Demonstration.

In January 2012, a team of DOE Headquarters safety and health experts performed a 2-week onsite evaluation at numerous S.M. Stoller Corporation LMS Team locations across the U.S. At these locations, many LMS employees were interviewed to assess their overall knowledge of the DOE-VPP process. Additionally, walkthroughs assessing the LMS Team's work practices were also performed. The DOE assessment process culminated in a recommendation to award DOE-VPP Star status to the S.M. Stoller Corporation LMS Team.



Dave Geiser and S.M. Stoller Corporation staff hold the DOE VPP Flag.

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Goal 2

Chronic Beryllium Disease Awareness Website for DOE Federal and Contractor Workers

The U.S. Department of Energy's (DOE) Office of Health, Safety and Security (HSS) has launched the Chronic Beryllium Disease (CBD) Awareness website.

The website provides a broad spectrum of information and resources about beryllium and CBD, including the symptoms and consequential conditions of the disease and its treatment.

According to the HSS website, "the primary audience for the CBD Awareness website is former and current DOE Federal and contractor workers, practicing clinicians, and healthcare educators and researchers. The CBD website was developed as the result of a partnership between HSS, workers, labor organizations, and the occupational medicine community."

The website information may be helpful to former workers at LM-inherited sites who may have worked with beryllium.

Along with the website, HSS developed a wallet-sized card for workers and their physicians with summary

information about CBD and the address of the more detailed awareness website. HSS is hopeful the information provided on the card will help patients understand the interrelationship between CBD and other medical conditions they may be experiencing.

The CBD awareness card and website are part of HSS's outreach initiative to provide information and to enhance the likelihood of timely diagnosis and treatment of potential CBD cases.

The main driver for this effort is the potential difficulties experienced by beryllium-affected patients in receiving appropriate medical care in medical communities that may lack specific related training, according to HSS. This information may help clinicians who may have limited or no experience with CBD to understand the wider effects of the disease.

For more information, contact the DOE Office of Health and Safety at (301) 903-5926. The CBD website is available at:

<http://hss.doe.gov/healthsafety/fwsp/advocacy/cbd/>. ❖



Goal 1

The Study of Natural Contamination

Can groundwater contamination be “natural?” According to Webster, contamination is something that is “impure”; the Glossary of Geology defines it as “an addition to water that renders it unusable.” These definitions do not necessarily imply human intervention. In fact, in a recent study, the U.S. Department of Energy Office of Legacy Management (LM) discovered uranium and selenium contamination in groundwater seeping from the Mancos Shale Formation as natural springs. During the study, 52 sites located in Mancos Shale in Colorado, New Mexico, and Utah were sampled and found to have concentrations of dissolved nitrate, selenium, sulfate, and uranium of more than 250, 1.0, 10,000, and 0.12 milligrams per liter (mg/L), respectively. Coincidentally, these constituents are the same ones that are released to groundwater at some legacy uranium-ore-processing sites, where LM is mandated to meet maximum concentration limits of 44 mg/L for nitrate, 0.01 mg/L for selenium, and



Covering large expanses in the arid southwestern United States, the Mancos Shale provides a plentiful source of natural contamination to surface waterways, such as the Colorado River, and to groundwater.

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Goal 2

LM Business Center Activities, Services Stressed During DOE Conference

U.S. Department of Energy (DOE) Office of Legacy Management (LM) personnel presented information about the LM Business Center (LMBC) records facility and ongoing LM records activities during the DOE Information Management Conference (IMC) held in Dallas, Texas, the week of April 16, 2012.

Three LM employees provided presentations to IMC participants. Each presentation included a brief introduction to LM’s mission and goals.

“LM Business Center Records Warehouse Operations and Records Storage for External Customers” was presented by Edwin “Doc” Parks, LM Program Analyst. The presentation covered the LMBC’s location, security features, and certification as an official repository by the National Archives and Records Administration (NARA). Dr. Parks also discussed the LMBC’s 60,000 cubic feet of storage space that is available for customer storage of inactive, unclassified temporary paper records.

Dr. Parks concluded his presentation with an explanation of customer storage requirements for the LMBC, some of which include indexes for each

accession, manifests for all shipments, payments for shipping costs, and the use of NARA-standard boxes. Several participants inquired about records storage availability at the LMBC.

“Preservation of Long-Term Temporary Records: Digital Conversion of X-Ray Film” was presented by Ms. Jeanie Gueretta, LM Program Analyst. The presentation examined LM’s challenges in managing inherited records collections, particularly the preservation of fragile media. Ms. Gueretta explained the specific efforts LM is taking to preserve more than 400,000 medical x-rays of contractor employees, which are needed to support medical compensation claims.

Ms. Gueretta explained that the x-ray film, created with a cellulose acetate base, is fragile and the ongoing x-ray digitization project that converts the images to a more stable electronic format will provide long-term preservation and efficient, effective access to the images.

During an IMC panel discussion of records management applications, Mr. Robert (Bob) Walker,

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Goal 5

Pinellas Environmental Restoration Project – Injection of Emulsified Soybean Oil at the Northeast Site and 4.5 Acre Site

Recent performance monitoring at the Pinellas Northeast Site at the Young - Rainey Science, Technology, and Research (STAR) Center and the adjacent 4.5 Acre Site has shown that contaminant concentrations are decreasing significantly. This decrease in contaminant concentration provides clear evidence of a stable or shrinking plume at each site, a requirement for site closure under the Florida Department of Environmental Protection’s Risk-Based Corrective Action regulations.

Following the completion of the large-diameter auger soil excavation to remove the contaminant sources at the STAR Center and the adjacent 4.5 Acre Site (Figure 1), the project team implemented a polishing step to enhance biodegradation of trichloroethene, dichloroethene, and vinyl chloride in groundwater and soil. Emulsified soybean oil and the microorganism *Dehalococcoides ethenogenes* were injected into the subsurface in January and February 2010. Although these microorganisms occur naturally onsite in the subsurface, the existing population was augmented to rapidly expedite growth and accelerate biodegradation.

A total of 170 injection points (75 at the Northeast Site and 95 at the 4.5 Acre Site) were installed at the two sites over a 6-week period. The project used 8,900 gallons of emulsified soybean oil. The oil was diluted with municipal drinking water at a 9:1 water-to-oil ratio to maximize distribution in the subsurface, resulting in a total injected volume of approximately 89,000 gallons (39,000 gallons at the Northeast Site and 50,000 gallons at the 4.5 Acre Site).

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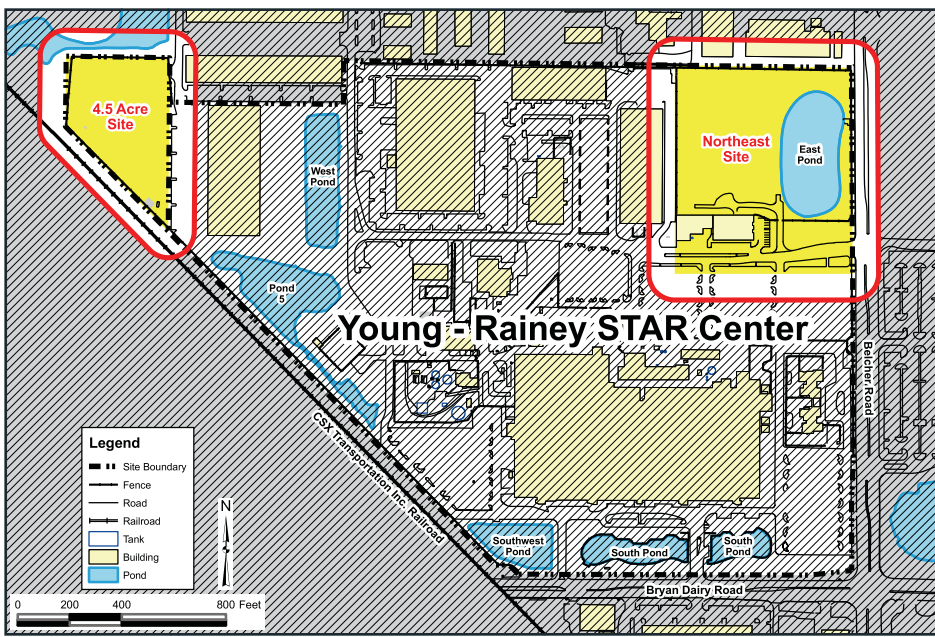


Figure 1. Location of the Northeast Site and 4.5 Acre Site



Figure 2. Photo of mixing and injection setup.



Figure 3. Photo of culture keg and culture drum.



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LM Management and Staff Tour the Weldon Spring Site Joined by Under Secretary Thomas P. D'Agostino

The four tours included a Radiation in the Environment tour, during which LM staff learned more about the history of the Weldon Spring site and how radioactivity may affect the human body and the environment.

The Groundwater Monitoring Well Demonstration was a hands-on demonstration that allowed staff to gain a basic understanding of how contamination of groundwater sources works. The site staff demonstrated

technology used to obtain groundwater samples and discussed their long-term monitoring program. During another tour, staff walked through the site's Interpretive Center Museum. During the Disposal Cell Walking Tour, employees hiked to the top of the 75-foot, 45-acre disposal cell. ❖



Under Secretary Thomas P. D'Agostino and LM staff visit the groundwater exhibit.



Tom Pauling speaks with staff in the Weldon Spring Interpretive Center Museum.





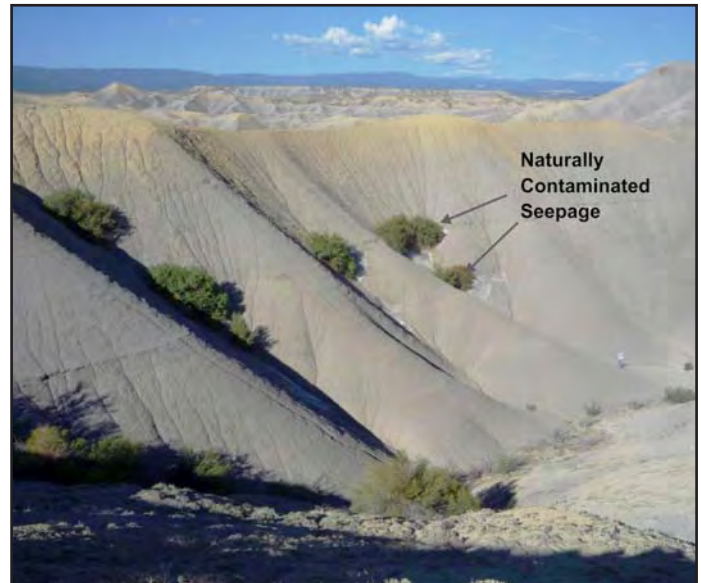
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The Study of Natural Contamination

0.044 mg/L for uranium. Some of these sites are located on the Mancos Shale, where telling the difference between natural and man-made contamination is problematic. It's important to understand that some contamination in groundwater or surface water is from natural sources in order to determine realistic groundwater cleanup goals.

The study asked the question: What geochemical processes could account for the natural contamination observed in the Mancos Shale? About 100 million years ago, mud and sand were deposited in the ocean within a vast area that geologists call the Western Interior Seaway. The mud and sand solidified to become the marine shale and sandstone layers of the Mancos Shale Formation. Nitrogen, selenium, sulfur, and uranium were deposited with the mud under chemically reducing conditions. Millions of years later, the Colorado Plateau was uplifted and the Mancos Shale rose to the earth's surface. Increased oxygen in the shallow earth changes the chemistry of these elements so that they are soluble and can leak from the shale and enter groundwater systems, resulting in the higher concentrations of uranium, selenium,

sulfate, and nitrate. The Mancos Shale acts like a super-slow-motion conveyor belt to constantly move contaminants from great depth to the earth's surface. Uplift and erosion are occurring at the same time, resulting in perpetual replenishment of the contaminants. ❖



Naturally contaminated lines of seeps in the Mancos Shale Formation near Delta, Colorado.



Naturally contaminated red water in a small arroyo fed from a Mancos Shale seep near Cerro Summit, Montrose County, Colorado.



Naturally contaminated water is often accompanied by widespread efflorescent salt deposits (near Price, Utah).



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Pinellas Environmental Restoration Project – Injection of Emulsified Soybean Oil at the Northeast Site and 4.5 Acre Site

Because the project included the injection of anaerobic microbes, the team took extraordinary measures throughout the mixing and injection process to ensure that the microbe cultures were maintained at optimum temperatures and not exposed to chlorine or oxygen, which would diminish or kill the microbes. Prior to mixing with the oil, the municipal drinking water was placed in a 20,000-gallon tank (Figure 2, page 5) and treated with sodium thiosulfate to remove chlorine and with sodium sulfite to remove dissolved oxygen.

The oil and treated water were mixed in a 2,000-gallon tank (Figure 2, page 5). The mixture had to meet the following requirements prior to injection: pH between 6 and 9, dissolved oxygen less than 1 milligram per liter, and oxidation-reduction potential less than -200 millivolts. This mixture was then pumped into four 500-gallon tanks prior to injection.

In addition, 50 gallons of diluted oil mixture was placed into 55-gallon culture drums, and 0.7 liter of concentrated *Dehalococcoides* culture was added (Figure 3, page 5). The concentrated culture contained 100,000,000,000 (1×10^{11}) cells per liter. The culture drum was constantly purged with nitrogen to preclude exposure of the microorganisms to oxygen. Twenty-five gallons of the microbial culture/oil mixture were injected at each injection point.

A direct-push drill rig was used to inject the diluted oil mixture through a 4-foot section of perforated rod. Each injection point received a total of 525 gallons of oil mixture over a 20-foot interval. The injected volume was

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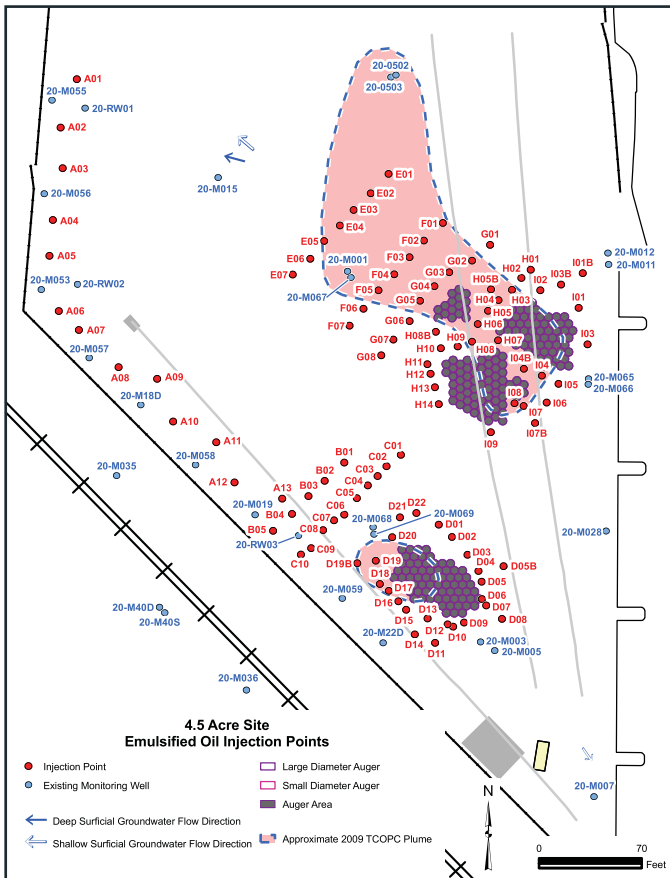


Figure 4. 4.5 Acre Site injection point layout.

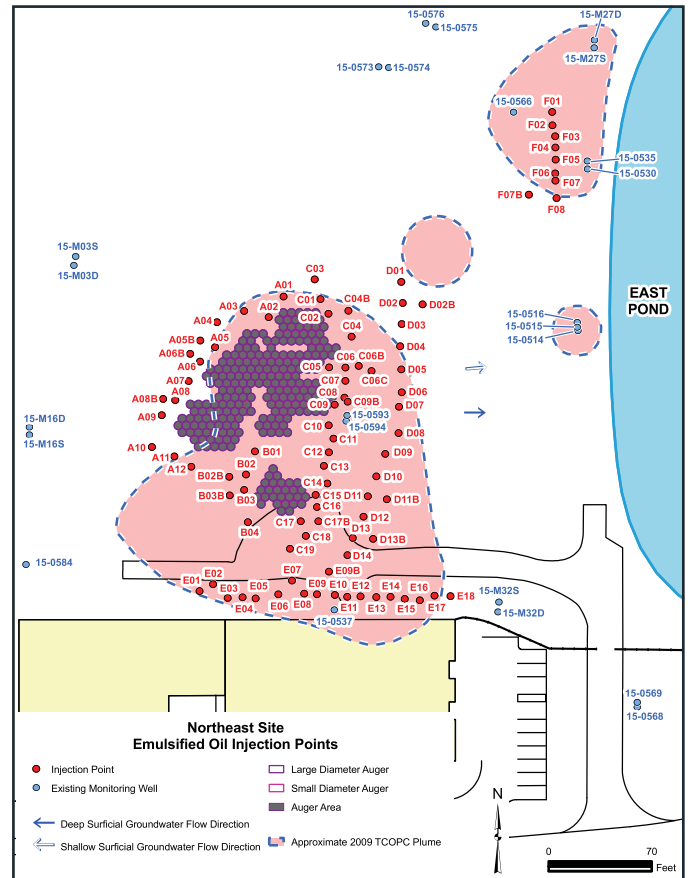


Figure 5. Northeast Site injection point layout.



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Pinellas Environmental Restoration Project – Injection of Emulsified Soybean Oil at the Northeast Site and 4.5 Acre Site

measured using inline digital flow meters. The injection interval ranged from the bottom of the surficial aquifer up to approximately 8 to 10 feet below ground surface.

Injection points were arranged to surround the soil excavation areas and to form linear injected reactive zones roughly perpendicular to the groundwater flow direction in the downgradient plume. Injection point spacing was 8, 10, 12, 15, or 30 feet, depending on location (Figures 4 and 5, page 8). In general, closer spacing was used for areas of higher contaminant concentrations, and wider spacing was used in lower-concentration areas.

Once in the subsurface, the soybean oil ferments and produces molecular hydrogen and a range of innocuous organic compounds. The *Dehalococcoides* microorganism uses hydrogen as an electron donor to break the carbon-chlorine bonds on the contaminant molecules, resulting in nontoxic end products such as ethene and chloride. The oil should remain effective in the subsurface for 5 years to as much as 10 years.

Performance monitoring has shown that contaminant concentrations are decreasing significantly at the areas within the influence of the soybean oil injection (Table 1, Figure 6). This decrease in contaminant concentration provides clear evidence of a stable or shrinking plume at each site, a requirement for site closure under the Florida Department of Environmental Protection’s Risk-Based Corrective Action regulations. ❖

Well	DHC (cells/L)	hydrogen (nM)	oxygen (mg/L)	acetic acid (mg/L)	butyric acid (mg/L)	hexanoic acid (mg/L)	i-hexanoic acid (mg/L)	i-pentanoic acid (mg/L)	lactic acid (mg/L)	pentanoic acid (mg/L)	propionic acid (mg/L)	pyruvic acid (mg/L)
15-0530	1.7E+06	1.60	0.94	0.69	<0.05	<0.05	<0.05	<0.15	<0.10	<0.07	<0.05	<0.15
15-0535	2.2E+05	not analyzed	1.20	30.00	1.50	<0.05	<0.05	1.30	0.45	2.20	44.00	2.90
15-0537	4.8E+06	3.10	1.80	58.00	0.25	<0.05	<0.05	0.07	<0.10	<0.07	7.10	0.34
15-0594	5.0E+07	not analyzed	2.20	270.00	15.00	2.70	<0.05	0.79	<1.0	2.70	42.00	1.60
20-M001	2.4E+06	6.40	1.00	270.00	12.00	1.60	<0.50	0.70	0.64	1.70	26.00	0.96
20-M053	8.1E+05	5.00	0.91	0.13	0.05	<0.05	<0.05	0.06	<0.1	<0.07	<0.05	0.07
20-M056	7.2E+03	6.20	1.50	73.00	0.18	<0.05	<0.05	0.12	0.33	<0.07	1.80	<0.15
20-M057	1.6E+04	8.30	0.93	39.00	0.13	<0.05	<0.05	<0.15	0.49	<0.07	1.80	0.15
20-M058	3.9E+04	4.30	1.60	0.04	0.05	<0.05	<0.05	<0.15	0.11	<0.07	0.05	<0.15
20-M059	7.6E+04	1.00	3.60	0.05	<0.05	<0.05	<0.05	<0.15	0.22	<0.07	<0.05	<0.15
20-M067	1.9E+05	13.00	0.93	0.04	<0.05	<0.05	<0.05	<0.15	0.11	<0.07	<0.05	<0.15
20-M068	4.3E+06	4.70	1.20	0.03	<0.05	<0.05	<0.05	<0.15	0.10	<0.07	<0.05	<0.15
20-M069	5.0E+02	2.30	0.94	0.06	<0.05	<0.05	<0.05	<0.15	<0.10	<0.07	<0.05	<0.15
20-M18D	2.4E+05	4.70	0.98	19.00	0.06	<0.05	<0.05	0.07	0.51	<0.07	0.65	0.07

Table 1. September 2010 data.

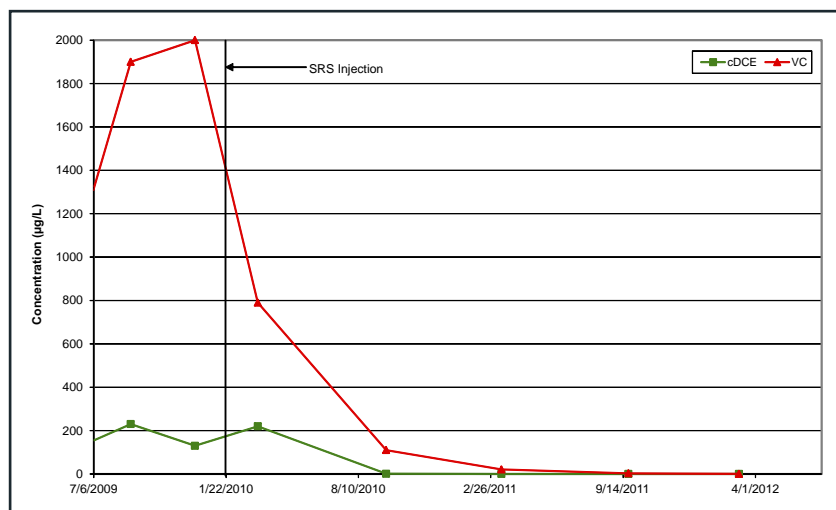


Figure 6. cDCE and VC in 15-0530 (time/concentration plot).



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DOE Awards the S.M. Stoller Corporation LMS Team with VPP Star Status

An extract from this team’s final report reads, “LMS clearly demonstrates its commitment to excellence and continuous improvement, and the Team recommends that LMS be admitted to DOE-VPP as a Star participant.”

Since its inception in 1994, DOE-VPP has promoted safety and health excellence through cooperative efforts among labor, management, and government at DOE contractor sites across the nation. DOE-VPP recognizes employers and workers in private industry who have implemented effective safety and health management systems and maintain injury and illness rates below National Bureau of Labor Statistics and DOE averages for their respective industries. Currently, the S.M. Stoller Corporation LMS Team’s injury and illness rate is less than one-tenth of the national average and less than one-third of the DOE average.

LM congratulates our primary operating contractor, S.M. Stoller Corporation, and the LMS Team, in achieving DOE-VPP Star status and joining an elite group of DOE contractors. ❖

Goal 1

Environmental Justice Activities

Community Leaders’ Institute (CLI), Birmingham, Alabama

The CLI sponsored by the Medical University of South Carolina and the U.S. Department of Energy (DOE) was held in Birmingham, Alabama, on May 18 and 19. The theme of the CLI was “Building and Sustaining Healthy Communities” and the purpose was to reinforce that progress requires informed and active leaders and to emphasize the unique relations between environmental protection, human health, environmental justice, and economic development, all of which are essential parts of community development. The CLI draws strength from the diversity of resources brought to collaborate on hard-to-resolve issues. Providing wide-ranging information to a CLI audience empowers those audience members to act as community leaders themselves.

A community’s most powerful resource is an informed and motivated cadre of community leaders—people of diverse backgrounds, interests, and expertise who can identify and resolve issues that impede progress.

Community leaders recognize the power of partnerships that will maximize resources and yield results. The CLI delivers programs that promote community development in cities and towns nationwide.

The Alabama CLI sessions focused on the role of government, health disparities and health issues, youth issues and challenges, economic development, transportation, housing, and community development. Participants and speakers included Alabama state representatives; the county commissioner; representatives from U.S. Environmental Protection Agency, DOE, and Alabama Department of Environmental Management; and the Mayor of Fairfield, Alabama. The 2-day event delivered a productive and well-attended CLI along with an Information Fair providing resources and information. ❖



Community Care Network volunteers provided free health screenings at the Community Leaders’ Institute in Birmingham, Alabama.



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Environmental Justice Activities

Federal Interagency Working Group on Environmental Justice Deputies Meeting

The Interagency Working Group on Environmental Justice (EJ IWG) Deputies Meeting was held April 12 at the White House Council on Environmental Quality (CEQ). The meeting was chaired by CEQ's Deputy Director Gary Guzy and U.S. Environmental Protection Agency (EPA) Deputy Administrator Bob Perciasepe.

The EJ IWG has made important progress during the past year. Federal agencies held 15 listening sessions throughout the nation with community stakeholders, signed a historic memorandum of understanding to formally recommit to identifying and addressing environmental justice (EJ) challenges, and in February, released the final EJ strategies and the first annual implementation progress reports. During the meeting, each agency deputy shared their views on proposed initiatives for future collaboration, including advancing each agency's internal and external communication on EJ; engaging existing Federal place-based and community-driven initiatives that focus on low-income, minority, and tribal populations to integrate principles of EJ into such work; and improving access to and transparency of each agency's EJ work, including a joint Web Portal.

Agency Highlights – U.S. Department of the Interior, U.S. Department of Agriculture, U.S. Department of Health and Human Services, U.S. Department of Labor, U.S. Department of Justice, U.S. Department of Housing and Urban Development, and U.S. Department of Energy (DOE) each presented a brief description of their proposed initiative for collaboration. DOE Associate Deputy Secretary Melvin Williams stated “at DOE, EJ is part of our mission and how we work. A large part is accountability.” To ensure that we provide the means for staff to understand EJ, DOE has created a continual learning program including a 1-hour online EJ training module for all Federal personnel designed to help staff understand what EJ is about. We would like to share it with other agencies and receive feedback.

In summary, some of the major themes discussed at the meeting were:

- Opportunities for private and public partnerships;
- Sharing of best practices and tools, such as communication tools;
- Opportunities to show the effects that this work has on real communities;
- Focusing on encouraging proactive approaches to EJ; and
- Agency EJ efforts supporting the EJ IWG action items for 2012.

Follow-Up Actions – Under the MOU, agencies are to complete an EJ progress report by February 2013. The recommendation was made that the agencies complete an interim report as well. In regard to internal and external communications, recommended agencies compare practices and collaborate with other agencies. Another Deputies meeting is planned for the near future. ❖



U.S. Department of Energy Associate Deputy Secretary Melvin Williams, Jr. and others at the April 12, 2012, Interagency Working Group on Environmental Justice Deputies Meeting.



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Environmental Justice Activities

2012 National Environmental Justice Conference & Training Program

On April 11 through 13, 2012, the Board of Directors of the National Environmental Justice Conference, Inc. (NEJC) held the 2012 National Environmental Justice Conference and Training Program in Washington, DC. Sponsors included the U.S. Environmental Protection Agency, the U.S. Department of Energy, U.S. Department of Agriculture, U.S. Forest Service, U.S. Department of the Interior, U.S. Fish and Wildlife Service, Beveridge & Diamond, P.C., and Pepco. Attendance for the conference and training programs was between 275 and 300 persons per day.

The conference brought together individuals and organizations from all aspects of environmental justice for open debate and to share best practices. This year's conference and interactive training program focused on capacity-building and technical assistance to enhance and empower communities and youth to help affect positive change. The interactive sessions featured a diverse group of representatives from Federal and state agencies, local governments, tribes, community groups, business and industry, public interest groups, academia, and other entities. The groups shared relative experiences and research of successful and unsuccessful programs and featured the needs and challenges of communities, governments, municipalities, tribes, faith-based organizations, and others with an interest in environmental matters.

Participants took part in panel discussions, questions and answer sessions, online and other training, and networking opportunities. It explored an array of topics including Title VI of the Civil Rights Act, health disparities, and community solutions. This year's conference introduced training segments that focused on grant writing and technical assistance, among other things. It focused on the enhancement of communities and provided ways for improved productivity and efficiency. Another spotlight and progress made for the conference was placing a greater emphasis on including more grassroots, community-based, and youth participation in the conference.

Attendees were addressed by speakers ranging from the Honorable Thomas P. D'Agostino, Under Secretary for Nuclear Security and Administrator for the National Nuclear Security Administration; Congresswoman Donna Christensen, MD, (D) U.S. Virgin Islands; the

Honorable Gwendolyn Keyes Fleming, Regional Administrator, U.S. Environmental Protection Agency; David Matthews, Director for New Reactor Licensing, U.S. Nuclear Regulatory Commission; to community environmentalist Jacqueline Shirley of Alaska and community activist and environmental justice pioneer and champion, Dr. Mildred McClain.

The conference partnership with Howard University School of Law produced a plethora of networking opportunities among students, faculty, community, business, and government leaders. Environmental justice combines civil rights with environmental protection. It gives voice to communities that have been historically excluded from environmental decision making. ❖



Dr. Pamela M. Wilson, President, Allen University, presents an award to U.S. Department of Energy for its support of Historically Black Colleges and Universities at the 2012 National Environmental Justice Conference & Training Program.



Melinda Downing, Environmental Justice Program Manager, U.S. Department of Energy, with participants from the middle school competition held during the 2012 National Environmental Justice Conference & Training Program.



Save the Date

Teaching Radiation Energy and Technology (TREAT) Workshop

July 10 through 12, 2012 • Aiken, South Carolina

A TREAT workshop will be held at the University of South Carolina in Aiken, July 10 through 12, 2012. For the past 14 years, over 350 minority, kindergarten through 12th grade, science teachers have been trained in waste management and environmental radiation through TREAT workshops. In a span of 14 years, 10 workshops have been organized in Savannah, Georgia, and 4 workshops in Aiken, South Carolina. Teachers receive five staff development units for attending. Speakers for this workshop include Savannah State University faculty; and representatives from U.S. Department of Energy, U.S. Environmental Protection Agency, Georgia Department of Natural Resources, Occupational Safety and Health Administration, and faculty from the Georgia Institute of Technology and the University of Florida. Teachers actively engage in learning about nuclear energy with hands-on laboratory exercises on radiation monitoring. Teachers are encouraged to infuse this knowledge into their classrooms during the academic year. This program has had a significant impact on student learning outcomes. Students are more curious and motivated to pursue a career in nuclear or environmental sciences.

For more information on the TREAT workshop, e-mail de'Lisa Carrico at dcarrico@srs.gov.

Community Leaders' Institute (CLI)

July 13 and 14, 2012 • Columbia, South Carolina

A CLI will be held on July 13 and 14, 2012, at Brookland Baptist Conference Center in Columbia, South Carolina. The purpose of this CLI is to teach community leaders how to access and obtain the information necessary for making good decisions, and then communicate that information to the citizenry. The CLI will focus on the unique relationship between environmental protection, human health, environmental justice, and economic development.

A critical factor in the success of community development is a well-informed community. Action occurs when those with authority assume an informed and active leadership role.

For more information on this CLI, visit <http://pico.library.musc.edu/CLIs.php>.

National Environmental Justice Advisory Council (NEJAC) Meeting

July 24 and 25, 2012 • Crystal City, Virginia

An NEJAC meeting will be held July 24 and 25, 2012, at the U.S. Environmental Protection Agency (EPA) Potomac Yard Conference Center in Crystal City, Virginia. The Advisory Council provides advice and recommendations about broad, cross-cutting issues related to environmental justice from all stakeholders involved in the environmental justice dialogue. In addition, the NEJAC provides a valuable forum for discussions about integrating environmental justice with other EPA priorities and initiatives. NEJAC, a Federal advisory committee to EPA, was established September 30, 1993.

For more information or to register for the conference, visit <http://www.epa.gov/oecaerth/environmentaljustice/nejac/register.html>.



Goal 5

Rocky Flats, Colorado, Dam Breach Project Photos



The Present Landfill (PLF) dam breach excavation is nearly complete. In the foreground the coffer dam retains water that flows from the PLF Treatment System. Once the breach is completed, the treated water will flow into No Name Gulch.



A track hoe with boom attachment is used to place the articulated concrete armor in the dam breach channel.



Workers position the pieces of articulated concrete armor to provide erosion control. The concrete armor encourages the establishment of vegetation in the channel.



Heavy equipment is used to excavate a notch in the dam to create a channel for surface water flow.



A "soil slinger" was used in some areas to evenly fill the bowl-shaped pond bottom with soil removed during the dam excavation.



Dam A-3 following completion. The former pond bottom has been seeded with native wetland species and the disturbed areas have been reseeded with native grasses and covered with either a spray-on mulch or erosion matting.



Goal 5

Office of Legacy Management Welcomes New Employees

Bill Dam is on loan to U.S. Department of Energy (DOE) Office of Legacy Management (LM) from the U.S. Geological Survey (USGS) in Henderson, Nevada. He started work for LM on May 6, 2012. He brings a combined 28 years of Federal and consulting experience. Bill will be working out of the Grand Junction office. Bill is a certified professional geologist and project management professional, completing over 30 publications and hundreds of consulting reports.

Bill studied geology at Guilford College in Greensboro, North Carolina, and investigated water pollution from a landfill for an undergraduate independent study. For his master's thesis at the University of Wyoming, Bill examined the groundwater geochemistry of in situ uranium mining and subsequent restoration. This work led to a position with the U.S. Nuclear Regulatory Commission (NRC) in 1984 to evaluate Uranium Mill Tailings Radiation Control Act Title I and Title II sites. His accomplishments included reviewing numerous remedial actions, conducting inspections of sites nationwide (including Canonsburg, Pennsylvania, during construction of the first new repository), and reviewing environmental assessments at nine proposed high-level radioactive waste repositories.

Bill worked across the United States on numerous small to large sites including the San Juan Basin Regional Aquifer Systems Analysis project for USGS, followed by a hydrogeology investigation of waste sites at Kirtland Air Force Base in New Mexico. On the Yucca Mountain project, he worked for three groups: NRC, Lawrence Berkeley National Laboratory, and DOE by focusing on unsaturated zone hydrology, geochemistry, and radionuclide transport processes. Most recently with USGS, he led project teams contracting to DOE to investigate former underground nuclear testing at the Nevada National Security Site on topics involving geology, hydrology, geophysics, and geochemistry. ❖

Goal 1

Community and Stakeholder Satisfaction Survey Update

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is currently conducting a community and stakeholder satisfaction survey. This survey is a follow-up to a telephone survey conducted in 2005 at four sites. For the 2012 survey update, LM expanded the scope to include more sites—including representatives of the Navajo Nation—and a web-based survey. While this survey is sponsored by LM, it is being done by an independent third-party contractor to maintain confidentiality and ensure objectivity. The purpose of this survey is to gauge the effectiveness of LM's communication and outreach to communities. On May 23, 2012, in Durango, Colorado, a series of one-on-one interviews was held with representatives of the Navajo Nation. Interviews were held at LM's Fernald, Ohio, site June 26 through 28, 2012. Interviews will be held at two more sites later this summer, then the surveys will be posted on a website. Stakeholders will be notified with e-mails and postcards when the survey results are available. ❖

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.





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LM Business Center Activities, Services Stressed During DOE Conference

LM Information Technology Specialist, presented “DOE’s Partner for Long-Term Records Storage: Transformation Through Partnership.” The focus of the presentation was LM’s electronic records activities. Mr. Walker also discussed LM’s use of Documentum as its primary electronic recordkeeping system and OmniRIM to manage physical holdings of records in the LMBC storage facility.

Mr. Walker emphasized LM’s transition of electronic data during site transition activities, most recently utilized when LM transferred large volumes of electronic data from the Yucca Mountain Project in Nevada. LM-presented material was well received by IMC participants. ❖



Aisle within the LMBC Records Storage Warehouse.

Anticipated LM Sites Through FY 2015





Legacy Management Goals



Goal 1. Protect human health and the environment

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*.



Goal 2. Preserve, protect, and share records and information

Objectives

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



Goal 3. Meet commitments to the contractor work force

Objectives

1. Safeguard contractor pension plans.
2. Fund contractor health and life insurance.



Goal 4. Optimize the use of land and assets

Objectives

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



Goal 5. Sustain management excellence

Objectives

1. 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.



U.S. DEPARTMENT OF
ENERGY

Legacy
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Office of Legacy Management

Program Update

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