



# INSIGHT

The Official Daily Newsletter of the 39th Annual Waste Management Symposium | Vol. 39, No.1 | February 24 – February 28, 2013

## Keynote Speakers



**David G. Huizenga** is the Department of Energy Acting Assistant Secretary for the Office of Environmental Management, will share his insights and expectations for the future of his

organization's activities when he kicks off the opening session of the 2013 Waste Management Symposium Monday, February 25th.

David G. Huizenga was appointed to the post by President Obama in July 2011. A nationally and internationally recognized expert in nonproliferation and nuclear waste management issues, Mr. Huizenga has over 25 years of leadership, management, and technical experience in a wide variety of programs across the Department of Energy.

He began his career researching and solving some of the Environmental Management program's greatest challenges as a Pacific Northwest National Laboratory research engineer at the Hanford site in 1985. In that capacity, Mr. Huizenga worked on long-term solutions to aging single-shell tanks that were leaking radioactive waste in the soil and other activities to protect the Columbia River and developed computer-modeling tools to evaluate the long-term performance of low-level radioactive waste forms.

He has a Bachelor of Science in Chemistry and a Masters in Chemical Engineering from Montana State University. He has received Meritorious Presidential Rank Awards in 2000 and 2008 and the Secretary of Energy Gold Award in 1998. Mr. Huizenga lives in Arlington, Virginia with his wife and two children.



**William C. Ostendorff** is currently serving his second term as a Commissioner of the US Nuclear Regulatory Commission (NRC). He is expected to discuss current and future activities of

the NRC. He may touch on the NRC Public Meeting which is planned for Friday to discuss proposed staff changes to the NRC Low-Level Waste Manifest Guidance NUREG/BR 0402.

Mr. Ostendorff has had a distinguished career as an engineer, legal counsel, policy advisor and naval officer. Before joining the NRC, he served as the Director of the Committee on Science, Engineering and Public Policy and as Director of the Board on Global Science and Technology at the National Academies.

Mr. Ostendorff also served as Principal Deputy Administrator at the National Nuclear Security Administration. He was a member of the staff of the House Armed Services Committee. There, he served as counsel and staff director for the Strategic Forces Subcommittee with oversight responsibilities for the Department of Energy Atomic Energy Defense Activities as well as the Department of Defense space, missile defense and intelligence programs.

He was an Officer in the United States Navy, retiring with the grade of Captain. During his naval career, he commanded an attack submarine, an attack submarine squadron and served as Director of the Division of Mathematics and Science at the United States Naval Academy.



**Jonathan Will** is Director General of Electricity Resources at Natural Resources Canada, where he is responsible for policy concerning electricity, nuclear energy and

radioactive waste management. He has held this position since the beginning of 2010. He is expected to touch on Canadian policies and programs as well as the Port Hope remediation effort.

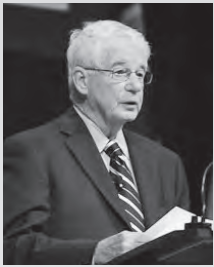
Prior to this position, Mr. Will worked for three years as Director of Operations at the Privy Council Office, the department that supports the Prime Minister. Here he was responsible for policies concerning climate change and other environmental issues, energy, including nuclear, and other natural resources issues. Jonathan has held other positions of increasing importance in the Government of Canada since 1994: at Finance Canada, Agriculture Canada and the Privy Council Office.

## WM2013: International Collaboration and Continuous Improvement

Now entering its 39th year, the annual Waste Management Symposium is widely regarded as the premier international conference for the management of radioactive materials and related topics. This year the event will summon leaders from 40 countries, presenting over 600 papers in 124 technical sessions.

*Continued on page 2...*

# President's Welcome



## *Welcome to the 39th Annual Waste Management Symposium*

*Jim Gallagher*

The WM Symposia is a non-profit organization with all proceeds going to further educational objectives.

Last year we were able to make substantial contributions to Universities, students and faculty, and we have significantly increased student participation at the conference each year. This year we have over 58 students attending and giving presentations, which I think is outstanding.

Our subsidiary organization, the Post Foundation, has been able to grant 12 scholarships that will be presented at the Tuesday Awards Luncheon. Also the James A. Glasgow Scholarship awards for 2nd or 3rd year law students demonstrating a meaningful interest in environmental law, will provide an additional 2 scholarships.

Waste Management prides itself on being the pre-eminent international conference for the management of radioactive materials. Last year we had 40 countries outside the US represented.

This year the featured country is Canada and in addition to the plenary discussions, we have two panel sessions devoted to the Canadian program and two sessions focusing on their Port Hope remediation project.

The Fukushima decontamination and decommissioning will again be another focus area with four sessions dedicated to different aspects of their co-operative D&D efforts

Additionally, this year we have an embedded thread that is woven throughout the program and that is on the Waste-Incidental-to-Reprocessing (WIR) process within DOE Order 435.1 for closure of HLW tanks. There will be 6 separate sessions devoted to this topic.

We also have increased the number of sessions we are providing to 124 and are also planning to have an all-day EFCOG meeting on Thursday to discuss the WIR. An NRC public meeting will take place on Friday to address the NRC Uniform LLW Manifest Guidance at the Sheraton Hotel.

Please enjoy the conference.



*Continued from page 1...*

**Our featured country this year is Canada**, with special presentations starting during the Plenary Session on Monday and four separate sessions on Canadian challenges and successes in radioactive waste disposal, the priorities and drivers for moving the Canadian waste management and decommissioning activities into the 21st Century, and the Canadian flagship environmental remediation project - The Port Hope Remediation Area Initiative. This two-part session will provide an overview and technical perspectives on the cleanup of historic LLW generated by the former Eldorado Nuclear Limited.

**The Tuesday featured site will be Idaho** with two sequential panels focusing on the fulfillment of the Idaho Cleanup Project mission through people, partnerships and innovation.

**On Wednesday the focus shifts to West Valley, New York** with a panel discussion of the challenges and successes in decommissioning the West Valley Site as well as the management of low level waste-incident-to-reprocessing and management of high level waste. **Other featured sites include Portsmouth and Paducah.**

**On Wednesday afternoon**, topics will include US/UK partnerships and cooperation, worldwide perspectives on radioactive waste management challenges and solutions, a session with the WM Energy Facilities Contractor Operating Group (EFCOG) and a panel on worldwide regulatory challenges of radioactive legacy sites, to name but a few.

**Our closing panel** will focus on the Blue Ribbon Commission findings "one year later" on America's Nuclear Future. We have invited numerous international experts, commission representatives and other organizations to participate in this "world view" panel. The Spent Nuclear Fuel/Used Nuclear Fuel/High Level Waste Topical Panel on Thursday afternoon will encourage strong audience participation.

The conference this year will also feature an **Embedded Topical on the Waste-Incidental-to-Reprocessing** policies under the United States Department of Energy Order 435.1 and the related process under the §3116 of the Ronald Reagan Defense Authorization Act of 2005.

**Also this year the U.S. Nuclear Regulatory Commission** will hold a public meeting on Friday, March 1st, to discuss potential changes to the US NRC Uniform Low-Level Radioactive Waste Manifest Guidance in NUREG/BR-0402. The meeting will be held at the Sheraton Phoenix Downtown Hotel located at 340 North 3rd Street following the conference, from 8:00 AM -1 PM. The NRC is proposing to revise this guidance document to address improved reporting for several hard-to-detect radionuclides which potentially drive the groundwater dose at LLW disposal facilities. All are welcome to attend.

And don't forget the social functions that include a day tour of the Grand Canyon, a guided hike in the Sonoran Desert, an Old Town Scottsdale lunch, the ever popular Phoenix by Night walking tour and the networking reception and dinner at Rawhide on Wednesday evening. Complete details on these and other social events can be found in your complimentary program.

**The Waste Management Conference is now covered via Social Media.** You can "like" the WM Symposia on Facebook and follow us on Twitter for the latest news and updates all week long. Facebook page is: WM Symposia. Twitter is: @WMSymposia And, you can access the daily WMS blog at [www.wmsym.org](http://www.wmsym.org)

## WM2013 Networking Receptions

Some of the most popular events at Waste Management include the receptions where you can relax, greet old friends or meet new ones. It all begins on Sunday with the 2013 **Conference Welcome Reception** held from 5:00 – 8:00 PM in the Lower Level Exhibit Hall of the PCC. Light hors d'oeuvres and refreshments will be served. **This event is sponsored by FLUOR.**

On Monday, the **International Welcome Reception** will be held in the Exhibit Hall from 5:00 PM to 6:00 PM. WMS appreciates our international delegates for their participation and contributions that make WM2013 a truly worldwide event.

Traveling to Phoenix from nearly 40 countries, our attendees represent many ongoing and emerging markets. In keeping with WMS' mission of education and opportunity, participation of a number of these global delegates are sponsored by the IAEA and WMS. Light hors d'oeuvres and refreshments will be served. **This event is sponsored by Westinghouse Electric Company.**

The **Student and Young Professionals Networking Reception** follows on Monday evening from 6:00 – 7:30 PM where all students, young professionals and conference attendees looking to meet and mingle with the next generation are welcome. Here's your chance to meet our student attendees and find out more about the next generation of WM professionals.

Also on Monday evening, join us in Room 102 AB at the PCC from 6:30 – 7:30 PM for the **National Museum of Nuclear Science & History Reception**. Please join WMS and the National Museum of Nuclear Science & History as they welcome local middle school science and math teachers to inform, excite and encourage them to participate in National Nuclear Science Week which is held October 21 – 25, 2013.

On Tuesday Evening it's the **Best of Canada Reception** from 5:00 PM – 6:00 PM in the Lower Level Exhibit Hall of the PCC. This reception will feature favorites from the Great White North such as salmon pinwheels, Molson beer and Nanaimo bars. **The reception is sponsored by Atomic Energy of Canada Limited (AECL).**

Also on Tuesday it's the **Women of Waste Management Networking Reception** from 6:00 PM to 7:30 PM where the topic is - Megatrends & Networking: Game Changers for Today's Professional Women. This program, **sponsored by FLUOR**, brings together four women leaders from diverse backgrounds (government, R&D, small business, international agency) who will share their ideas on game-changing trends from their personal perspectives. Refreshments will be offered throughout the event.

Fluor will be making a \$25 donation to **Women for Wounded Warriors** on behalf of every person who attends the Women of Waste Management event.

Wednesday night features the **Rawhide Networking Event** from 6:30 – 10:00 PM at the Rawhide Western Town and Steakhouse. While the event is no longer included in the full technical registration, come out and experience the real wild west and enjoy a satisfying meal. Buses leave the Monroe Street exit of the Hyatt starting at 6:00 PM. The cost per person is \$85.00 and tickets may be obtained at the registration desk on the Lower Level of the PCC.

Thursday evening will feature the **WIR/Blue Ribbon Commission Networking Reception** from 5:00 – 6:00 PM on the Level One Foyer of the PCC. All workshop participants and Thursday attendees are welcome to relax and enjoy a drink while networking after the wrap up of the conference on Thursday afternoon. **The event is sponsored by URS.**



## Dr. Peter Lyons to Address Monday Luncheon



The U.S. Department of Energy Assistant Secretary for Nuclear Energy will look at current issues in DOE nuclear energy programs when he addresses the Monday luncheon of

the Waste Management Symposium on February 25th.

Dr. Peter B. Lyons was confirmed in his present position by the United States Senate in 2011. Previously he had served as Principal Deputy Assistant Secretary of the Office of Nuclear Energy. He is responsible for all programs and activities of the DOE Office of Nuclear Energy.

During the first term of the Obama Administration, the President outlined his vision for clean energy as requiring an "all-of-the-above" strategy, to include nuclear energy. With a continued focus on clean energy in the second term, nuclear energy must continue as a viable candidate for the nation's needs.

Lyons is a former commissioner of the Nuclear Regulatory Commission where he focused on the safety of operating reactors and on the importance of learning from operating experience and was a consistent voice for improving partnerships with international regulatory agencies.

## Fukushima Faux-Paus

*Being well-intentioned may not be enough when reactors explode*

Only days after the Fukushima nuclear reactor disaster on March 11, 2011, the DOE Pacific Northwest National Laboratory found itself in a maelstrom of media attention following announcement of the detection of minute levels of radioactive material originating from the damaged reactors 4,500 miles away.

*Continued on page 5...*





# GLOBAL

## presence and proven performance

Babcock & Wilcox Technical Services Group, Inc.

**a trusted leader in  
environmental management**

- Environmental remediation
- Complete D&D to free release
- Cleanup and disposal of legacy waste
- Underground storage and containment



[www.babcock.com](http://www.babcock.com)

# Canada Featured Country for WM2013

## Canadian Communities Involved in Remediation of Contaminated Sites

Canada has a lot on its plate with the numerous projects involved in the Flagship Project, the remediation of Port Hope. Canadian remediation efforts are unique and widely differing and involve such actions as removal of sediment from the Harbor, remediation of the historic Central Pier, small scale remediation of personal properties to landfill remediation. You won't want to miss the discussions on the logistics, regulatory challenges and other obstacles to remediating radioactively contaminated facilities in urban areas.

Panel Session 03 on Monday morning is one of a number of symposium events focusing on waste management in Canada; the Featured Country at WM2013. It will immediately follow the opening plenary session when Jonathan Will, Director General of Electricity Resources at Natural Resources Canada will address all conference attendees and set the stage for

the many technical presentations on the very active Canadian waste management scene.

As for all Tier One nuclear nations, public acceptance for the initiatives dealing with the management of wastes from nuclear activities is essential for the industry to continue and for major projects to proceed. With so many projects under way in Canada now, this panel will share the experiences of both industry proponents and host communities on broad and on project-specific bases.

During this two-hour panel session, the approaches used to engage and consult Canadians on significant waste management initiatives - and the valuable lessons learned -- will be discussed and debated. Please join us on Monday morning in Room 105 B at the PCC

Discussing their experiences will be: **Heather Kleb**, Acting President & Chief

Executive Officer of the Canadian Nuclear Association; **Jo-Ann Facella**, Director of Social Research and Dialogue with the Nuclear Waste Management Organization; **Linda Thompson**, Mayor of Port Hope, Ontario; and **Larry Kraemer**, Mayor of Kincardine, Ontario

Session 41 continues the discussion of Port Hope remediation efforts with an overview of effort required to get the Port Hope Initiative under way, from pushing paper to pushing dirt and the unique regulatory aspects of the Initiative.

Session 54 will give more details into the myriad technical, logistical, scheduling and regulatory challenges that faced each aspect of the project, from the landfill remediation, to treating of waste water to the remediation of personal properties in an urban setting.

## Canadian Policy and Program Forum

On Monday afternoon Canadian waste management policies and programs will be featured in a panel discussion among Canadian senior government, regulatory and industry officials. With so much happening in the Canadian Waste Management, Decommissioning and Environmental Remediation (WMDER) sector, this panel will provide an excellent primer for those interested in understanding the current and changing landscape "north of the border".

### The speakers for this national panel include:

**Doug Metcalfe**, Senior Manager, Uranium & Radioactive Waste Division, Natural Resources Canada (NRCAN), who will set the stage by providing an overview of

Canadian radioactive waste policies and the role of NRCAN in setting policy and overseeing their implementation.

**Joan Miller**, Vice-President, Decommissioning & Waste Management, Atomic Energy of Canada Limited (AECL) will discuss the implementation of two of the largest national programs to cleanup historic and legacy liabilities in Port Hope, Ontario and at AECL's Chalk River and Whiteshell Laboratories.

**Liam Mooney**, Vice-President, Safety, Health, Environment, Quality (SHEQ) and Regulatory Relations, Cameco Corporation, will address the uranium mining scene in northern Saskatchewan and the safe management and remediation of tailings sites.

**Peter Elder**, Director General, Nuclear Cycle and Facilities Regulation, Canadian Nuclear Safety Commission, will explain the Canadian approach to regulating waste management and decommissioning projects and overview the current and evolving regulations.

**Kathryn Shaver**, Vice-President, Adaptive Phased Management Engagement and Site Selection, will describe the approach being used by the Nuclear Waste Management Organization to dialogue with Canadians and potential host communities regarding the proposed used fuel repository and discuss the priorities for the next five years.

Panel Session 13 will take place on Monday afternoon in Room 102B Policies and Successes.

*Continued from page 3...*



*Geoff Harvey*

consequences to the public. Lab scientists and engineers engaged in dozens of

Over the course of about three weeks, the PNNL News & Media Relations staff responded to more than 100 requests for information about the detection, subsequent data collected and potential health

interviews with reporters from the New York Times, BBC, Nature magazine, Scientific American and many more.

Citizens in the western U.S. grew increasingly concerned about health impacts from news of the radioactive contamination detected following the reactor explosions. But who was responsible for communicating health information to the media? What can you say when your information is preliminary and un-vetted? What happens when what you're saying on the radio doesn't add up to

what the national news is reporting?

Managing the message in the midst of this media onslaught presented several hiccoughs and miss-steps that could be referred to as 'the rest of the story.' PNNL Media Relations Specialist, Geoff Harvey, will discuss some interesting challenges and reveal several lessons-learned in the delivery of *Fukushima Media Involvement: Lessons Learned and Challenges*.

The paper is part of Session 028 - Communication of Technical Issues, and will be presented at 1:30 PM on Monday, February 25. Room 106A.

## Student Poster Competition

Be sure to visit the Student Posters session on Monday, February 27th in the Exhibit Hall and vote for your selection for Best Student Poster. The winning student will be presented with \$500 cash at the Tuesday Honors & Awards Luncheon. In addition, the “Best Poster Awards” from last year’s WM2012 Conference will be presented at the Tuesday luncheon. They are:

- ANS Award - Best Poster Presentation/Paper: “Surface Decontamination Using Laser Ablation Process”. Fabrice Moggia, Xavier Lecardonnel, Frederique Damerval, AREVA (France). Abstract 12032; from Track 6 - D&D
- ASME Award - Best Poster Presentation/Paper: “Transport of Organic Compounds in Old Salvage Yard, Oak Ridge, TN”. Siamak Malek-Mohammadi, Georgio Tachiev, David Roelant, Florida International University; Kent Bostick, Anamary Daniel, Pro2Serve (USA) Abstract 12089 - from Track 7 - ER.



## Student Opportunities at Waste Management

Monday is a day that will highlight students, and opportunities for them to network and meet other Waste Management professionals. This year, there are more students from more places than ever before, including students from outside the U.S. A special networking session for students and young professionals will begin just after the International Welcome Reception Monday evening. **Student posters will be featured from 1:30-5 PM on Monday.**



## Women of Waste Management



Women delegates and anyone interested in opportunities for women in our industry are invited to attend the Women of Waste Management Networking Reception Tuesday evening from 6:00 PM - 7:30 PM in the Hyatt Regency AB Ballroom. The theme of the reception this year is “Megatrends Matter...Their Effects from Women’s Perspectives.”

Megatrends are the great forces in social development that will very likely impact the future in the next 10-15 years. Many companies and organizations use megatrends in their strategic work in corporate strategy, market innovation, business development, product development and human resources. Key to us is the global move to an era where gender roles are less rigid, as evidenced by more women moving into increasingly responsible corporate roles.

The Fluor-sponsored reception will include a 45-minute panel discussion followed by a moderated Q & A period, with about 30 minutes set aside for networking. Four women executives in various areas of the nuclear industry comprise the panel:

- **Alice Williams**, Associate Principal Deputy Assistant Secretary (DOE)
- **Roxie Schescke**, President, Indian Eyes
- **Joan Miller**, VP & GM, Decommissioning & Waste, AECL Nuclear Laboratories
- **Beth Sellers**, Deputy Director, Los Alamos National Laboratory.

Refreshments will be offered throughout the event, with informal seating to encourage interaction.

As with last year’s event in lieu of “logoed” items as giveaways, FLUOR will make a \$25 donation to a woman-focused organization, Women for Wounded Warriors ([www.womenforwoundedwarriors.com](http://www.womenforwoundedwarriors.com)) on behalf of every person that attends the event. We are pleased that Terri McNally and Lisa Hanlon, co-founders of the organization will be joining us for the evening schedule permitting.



# URS

Federal

Oil & Gas

Infrastructure

Power

Industrial

Global Management  
and Operations  
Services

## Cleaning and Closing High-Level Waste Tanks

Safe closure of two underground storage tanks at Savannah River Site, reducing South Carolina's number one environmental risk.

Using the Mobile Arm Retrieval System to remove 200,000 gallons of radioactive and chemical waste from a single-shell tank at Hanford.

[www.urscorp.com](http://www.urscorp.com)





# WM Symposia Vision and Mission

## VISION STATEMENT

WM SYMPOSIA, INC. continues to be the premier non-profit organization dedicated to providing education and information exchange on global radioactive waste management.

## MISSION STATEMENT

By holding the annual Waste Management Symposia (WMS) international conference for the management of radioactive waste and related topics, WMS provides the premier open forum for discussing and seeking safe, environmentally responsible, technically sound and cost effective solutions to the management and disposition of radioactive wastes and the decommissioning of nuclear facilities to enhance the transparency and credibility of the global radioactive waste industry.

## GUIDING PRINCIPLES

- 1) We value Technical Excellence and Business Innovation, and WMS provides a forum for independent and open exchange of information.
- 2) We value International Participation to improve global management of radioactive wastes.
- 3) We believe in Education and Mentoring to prepare the next generation of nuclear waste professionals with use of funds from the conference.
- 4) We believe in Exceeding Customer Expectations by providing a relevant conference with good value by listening to their feedback.
- 5) We believe in the value of Networking and provide a venue for face-to-face interactions and development of professional relationships.
- 6) We value our Attendees, Exhibitors, Sponsors, Speakers and Volunteers as all are integral to the success of the WM Conference.
- 7) We value Diversity in all aspects of WMS activities and offerings.
- 8) We believe the WM Conference provides an excellent forum to ensure the Safe Management of Radioactive Wastes for current and future generations.



**NUCLEAR ENGINEERING INTERNATIONAL**

**SUBSCRIBE TODAY: +44 (0)845 155 1845**

# DOE to Address Small Businesses Barriers in Government Contracting

DOE-EM and the DOE Office of Small and Disadvantaged Business Utilization (OSDBU) are working to address barriers that hinder small businesses from competing for prime contracts for work in the Cold War cleanup program. To that end, OSDBU and DOE-EM are co-hosting a discussion led by a panel of diverse experts from DOE headquarters and leaders from small business companies. The panel dialogue will focus on input received from small businesses.

The panel will meet at 3:15 PM on Feb. 26th during the Waste Management Conference. During the session hosted by DOE, the panelists will interact with the audience as they describe strategies for achieving small business contracting objectives and mitigation of barriers that may affect small business contracting opportunities.

Panelists include OSDBU Deputy Director John Hale III; EM Deputy Assistant Secretary for Acquisition and Project Management Jack Surash; Dade Moeller CEO Matt Moeller; and Wastren Advantage, Inc. President and CEO Steve Moore. Dade Moeller provides professional and technical services in environment, safety and health and quality assurance. Wastren Advantage provides solutions for managing the lifecycle of hazardous and radioactive materials.

For more information visit us on the Web: <http://energy.gov/em>



Engineering | Environmental | Nuclear

## Innovative and Sustainable Solutions

132 Jefferson Ct. | Oak Ridge, TN 37830 | 865-483-7210  
[spectratechinc.com](http://spectratechinc.com)



## CABRERA SERVICES



Providing innovative technology and solutions to solve complex radiological, environmental, and military munitions problems.

[www.cabreraseservices.com](http://www.cabreraseservices.com)





# A Cleanup First at Hanford

U.S. Department of Energy (DOE) contractors completed cleanup of F Area in 2012, the first reactor area at the 586-square-mile Hanford Site in southeastern Washington State to be fully remediated.

F Reactor was the third of Hanford's nine plutonium production reactors built along the Columbia River to produce plutonium for the nation's defense program during World War II and the Cold War. The reactor operated from 1945 to 1965.

In 2003, F Reactor was placed in interim safe storage, a process known as "cocooning." The reactor was torn down to little more than its radioactive core, sealed up and reroofed to let radiation decay to more manageable levels over 75 years.

While six of Hanford's reactors have been cocooned, F Area is the first to have all of its associated buildings and waste sites cleaned up. To complete the mission, contractors combined to demolish 112 facilities and remediate 88 waste sites - removing about 1.5 million tons of contaminated material from the two-square-mile site. The majority of the waste was packaged and transported to central Hanford's Environmental Restoration Disposal Facility for permanent disposal.

"The cleanup of the F Reactor Area shows the tremendous progress workers are making along Hanford's River Corridor," said Dave Huizenga, Senior Advisor

for the DOE Office of Environmental Management. "The River Corridor is the complex's largest environmental cleanup closure project. The F Area cleanup has substantially reduced risk to the Columbia River."

F Area was unique because it contained Hanford's animal experimental farm, which operated from 1945 to 1976. Animals were used for studying the potential effects of radiation exposure to humans. Reactor and animal farm sites contributed to the discharge of contaminated cooling water, other liquids, and solid wastes.

Washington Closure Hanford, which manages the River Corridor Closure Project for DOE Richland Operations Office, completed the final two phases of cleanup of F Area by remediating 55 waste sites and removing 646,000 tons of contaminated material. The River Corridor is a 220-square-mile area along the Columbia River and is DOE's largest environmental cleanup closure contract.

"Many of the facilities, burial grounds, and waste sites associated with F Reactor were highly contaminated and required a safety conscious, highly skilled and dedicated workforce to complete the work," said Carol Johnson, Washington Closure president. "I am very proud of our team. Congratulations to everyone involved who made the cleanup of the F Reactor Area a success."



*A worker cuts and drains pipe at a waste site in F Area. The pipe contained sodium dichromate, which was used as anti-corrosion agent.*

Some of the waste sites were large burial grounds containing contaminated soil and debris. Workers also found anomalies, including bottles, drums, animal carcasses, high-pressure cylinders, spent nuclear fuel, and high-dose irradiated items. Some of the anomalies required special methods to sample and characterize the material, which called for additional hazard controls to ensure worker safety.

One waste site required workers to dig to groundwater, about 47 feet deep, to remove soil contaminated with chromium. Sodium dichromate, a chemical used as a corrosion inhibitor, was added to the river water to cool the reactor.

While cleanup of F Area is complete, workers will return to the site this fall to revegetate areas that were disturbed during cleanup. They will plant vegetation that is native to the Hanford Site and has the best chance for survival.

What will remain at the site, aside from the cocooned reactor, is a concrete clearwell about the size of a football field that was used to hold filtered water for cooling the reactor. While preparing to demolish the below-ground structure in 2006, workers discovered the clearwell had been invaded by tiny bats. Today, the below-ground concrete structure is home to about 6,000 Yuma bats that roost from March through October. It is the largest known maternity colony in eastern Washington.



*Workers excavate contaminated soil from an F Area waste site near the Columbia River.*

# WIR Perspectives and Successes

Two back-to-back Panel Sessions on Monday afternoon will discuss policy maker's perspectives and successes with the WIR and the related NDAA S3116 processes.

Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (NDAA) provides that certain radioactive waste resulting from the reprocessing of spent nuclear fuel is not high-level waste if the Secretary of Energy, in consultation with the Nuclear Regulatory Commission (NRC), determines that it meets the criteria set forth in the NDAA. This determination is signed by the Secretary of Energy and involves a complex process which not only involves the DOE and the NRC, but state officials and citizens.

DOE has issued three waste determinations since 2006. The first waste determination, for salt waste disposal at the Savannah River Site (SRS), was made in January 2006. The second waste determination was for the Idaho Tank Farm Facility at Idaho National Laboratory in November 2006. In March 2012, SRS issued the F Tank Farm determination. A fourth determination is in the works for the second tank farm at SRS, H Tank Farm, and is currently out for public comment.

The SRS salt waste disposal determination recognized that the treated decontaminated liquids removed during the reprocessing of waste stored in tanks could be disposed as low activity waste and remain in on-site vaults. As the storage tanks are emptied and cleaned, they are also managed as low activity waste and therefore Section 3116 applies to the small amount of residuals remaining after cleaning the emptied tanks. The resulting high activity treated waste has been vitrified and is awaiting shipment to a repository.

For the Idaho tanks, the first eleven tanks had been cleaned prior to the passage of the NDAA. Because these tanks were constructed of stainless steel and contain no cooling coils, the tanks were comparatively simple to clean. Those tanks have now been filled with grout. The remaining four tanks at Idaho will be emptied soon and they will also be grouted and a closure cap placed over the entire tank farm.

At West Valley, New York, the DOE recently issued the Waste-Incidental-to-Reprocessing (WIR) evaluation for the concentrator feed makeup tank and the melter feed hold tank. These vessels were used in the vitrification of high-level waste at the West Valley Demonstration Project. The WIR evaluation enabled the determination that these two vessels are not high-level waste and may be disposed as low-level radioactive waste. This evaluation process is similar to the NDAA S3116 process mentioned above, but was developed much earlier and is delineated in DOE Manual 435.1-1, Radioactive Waste Management Manual. The process utilized in accordance with DOE M 435.1-1 was similar to the Waste-Incidental-to-Reprocessing evaluation for the West Valley vitrification melter, which was issued in January 2012.

The process for completing the Waste-Incidental-to-Reprocessing evaluation for the two vessels proved to be much more efficient than the process for completing the melter evaluation due largely to application of the lessons learned from the melter evaluation. The vessel Waste-Incidental-to-Reprocessing evaluation was prepared in much less time than the one for the melter. The Nuclear Regulatory Commission (NRC) had fewer questions on the vessel draft evaluation during its consultation review and NRC staff was able to issue its technical evaluation report in less time than for the melter evaluation.

## EFCOG WMWG Meeting at WM2013

As a reminder to EFCOG Waste Management Working Group (WMWG) Members/Supporters, the EFCOG WMWG meeting will be held in Phoenix on February 27, 2013. This Roundtable discussion, Session 84, will take place from 1:30 – 5:00 PM in Room 106A of the Phoenix Convention Center.

For additional information, please contact Tammy Monday at tmonday@perma-fix.com or by telephone at 865-342-7613 (office) or 865-599-9605 (cell).

## Hot Topics and Emerging Issues in Commercial US LLRW Management

This panel will focus on emerging issues in commercial LLW management in the US from the perspective of five active members of the Low-Level Radioactive Waste Forum, Inc. State, compact, federal and industry officials will share their views on a variety of timely and significant topics related to low-level radioactive waste management and disposal including, but not limited to:

- Texas Commission on Environmental Quality (TCEQ) regulatory and licensing issues concerning the newly operational Waste Control Specialists facility possibly including such items as rate setting developments; waste acceptance criteria; legal and court issues; impact of federal rulemaking initiatives; and/or sealed source disposal;
- U.S. Nuclear Regulatory Commission 10CFR Part 61 rulemaking initiative -- including the recently released preliminary rule language and regulatory basis document;
- Utah Department of Environmental Quality (DEQ) regulatory and licensing issues including the approval of the sealed source variance; issuance of the Class A West amendment; review of the depleted uranium performance assessment; and, any other relevant and timely local issues;
- U.S. Environmental Protection Agency waste estimate support tool that the agency has been developing to generate estimates of waste volumes from radiological incidents; draft revisions of the Protective Action Guides (PAGs) manual; radiogenic cancer risk estimates study and analysis of the associated data; and, low-activity waste rulemaking; and,
- NRC proposed Branch Technical Position on the Import of Non-U.S. Origin Radioactive Sources.

Panelists will include: **Brad Broussard**, Texas Commission on Environmental Quality; **Aby Mohseni**, NRC Environmental Protection and Performance Assessment Directorate; **Rusty Lundberg**, Utah Division of Radiation Control; **Paul Lemieux**, EPA ORD/NHSRC/DCMD, and **Brooke Smith**, NRC Office of International Programs.



# CH2MHILL®

A year of unprecedented success and delivery excellence . . .



**CH2M HILL** specializes in the management of complex nuclear programs and projects around the globe. From the clean-up and environmental remediation of commercial and government nuclear facilities and sites to the management and operation of large nuclear projects with inherent radiological, chemical, and industrial safety challenges **CH2M HILL** is successfully and safely delivering projects ahead of schedule and under budget.

In 2012, our efforts have reduced costs and improved schedule performance, quality, and safety standards across the DOE Complex and at sites around the world. Through the commitment and dedication of the highly skilled **Idaho Cleanup Project** workforce and partnerships with cleanup stakeholders, we achieved unprecedented progress as we completed the \$2.9 billion ICP—delivering the ICP \$520 million under budget. This truly dedicated team delivered 20 percent of additional work for every dollar spent. **CH2M HILL** also completed the targeted waste exhumation of the infamous Pit 9 one year ahead of schedule and \$10 million under budget with no recordable injuries. This accomplishment completed the regulatory waste removal end-state for one of the most politically charged DOE projects at the Idaho Site.

**CH2M HILL's** scope at the **East Tennessee Technology Park** Project includes the demolition of K-25 - where we made excellent progress and 15,000 loads of demolition debris. At the **Hanford Plateau Remediation** Project we completed the construction and commissioned the 200W Groundwater Treatment Facility, the only non-administrative Leed Gold Certified in the DOE-EM complex.

Delivering Safety, Results,  
and Improved Performance  
[ch2mhill.com](http://ch2mhill.com)

**WORLD HEADQUARTERS**  
9191 South Jamaica St.  
Englewood, CO 80112  
United States of America  
303.771.0900  
[www.ch2mhill.com](http://www.ch2mhill.com)

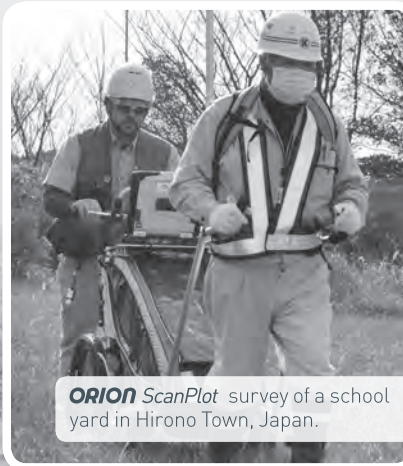




# Shaping the Future

## A global leader in large-scale radiological remediation and waste management services

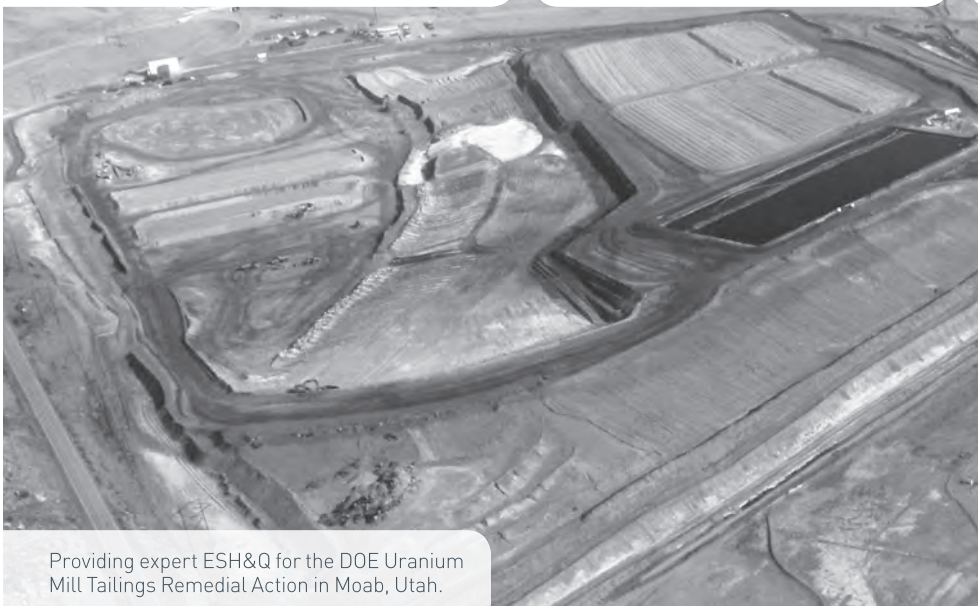
Worked over one million hours safely remediating radiological waste and design/build of a repository for DOE in Monticello, Utah.



**ORION ScanPlot** survey of a school yard in Hirono Town, Japan.



Excavated radiological waste and soil at former nuclear fuel fabrication facility in Windsor, Connecticut.



Providing expert ESH&Q for the DOE Uranium Mill Tailings Remedial Action in Moab, Utah.



**ORION ScanSort** is a conveyor-based system used for radwaste segregation & minimization.

Delivering integrated solutions that incorporate innovative technologies to address radiological, hazardous and multimedia contamination challenges.

Follow Us



[amec.com](http://amec.com)



## Culture – the Linchpin for Safety

This panel will focus on the critical role that culture plays in establishing and maintaining a safe work environment. While knowing the requirements, following the procedures, taking hands-on training courses, attending safety-focused workshops, and following pre-work check lists are all elements of a safety program, the linchpin that holds them all together is culture. And while it sounds simple, developing a strong safety culture is very difficult. As some have said, ...achieving a strong and enduring safety culture is akin "to a marathon, not a sprint." Further, it takes more than manuals and training, it demands leadership and trust. Accepting less than 100 percent safe performance 100 percent of the time is just not good enough. In the U.S., workplace deaths, illnesses and injuries cost society \$155.5 billion each year...to say nothing about the pain and suffering of individuals and their families. Put in different terms, in the U.S., a 1.7 percent error rate by community pharmacies in dispensing prescriptions results in 30 million mistakes each year. Even a .1 percent error rate has massive repercussions: 500 incorrect surgical procedures a week; 2 unsafe plane landings at O'Hare airport alone each day; and 22,000 checks deducted from the wrong account each hour. So join us to hear our panelists share in a spirited discussion of the importance of culture (aka leadership and trust) in building and sustaining successful safety programs.

### Insight Newsletter

— EDITORS —

**Linda Lehman**  
Consultant

**Mike Berriochoa**

Professional Communications Services

**Joy Shoemake**

Jacobs Engineering

— CONTRIBUTING EDITORS —

**Nan Kilkeary**

B&W Conversion Services, LLC.

Editors welcome articles or news of interest to symposia attendees: **Deadline 2:00 PM**

**Phone:** (612) 867-9725

**Email:** LLehman@wmarizona.org

— LAYOUT / GRAPHICS —

**Jenny Fuciarelli**

Markitmotion, Inc.

## Exhibit Hall Open Daily

There's action in the lower level of the convention center. That's where you'll find more than 200 exhibits representing the full spectrum of radioactive waste industry. The WM Exhibit and Marketplace has traditionally been a center for networking, viewing demonstrations and learning about new products. Evening receptions are held in the hall Sunday, Monday and Tuesday evenings. Insight newsletter staff will be walking the exhibit halls on the lookout for any special "Rad-Hot" deals. Look for our reviews right here in the *Insight*.



### Stable Partner

## For Nuclear Management

*"Overall exceptional performance. They were proactive, responsive and very astute and experienced in performing a D&D project in a Category II nuclear facility. They worked safely. They managed within their cost and schedule baselines under a fixed price contract. They provided solutions to make the project successful."*

~ DOE Contracting Officer 10/16/2012 CPAR

*"The workforce was skilled, knowledgeable, dedicated, hardworking, with a sense of pride in their work. All personnel were also committed to following the safety program and working safely. Adherence to safety and the safety plan were outstanding on this project."*

~ USACE Construction Branch Chief 9/10/2012 CPAR

Decontamination & Demolition | Remediation | Characterization  
Low-Level & Mixed Waste Treatment | Tritium & TRU Waste Management  
R&D Lab to Develop Treatment Recipes | Studies & Plan Development  
Health Physics & Radiological Programs & Support | Instrumentation Lab Providing  
Rental, Repair, and Calibration



Nuclear Services



Waste Services



Technical Services

800.905.0501 | www.perma-fix.com

# Providing Services to Government and Industry for more than 75 years



**Engineering**



**Project Management/  
Construction Management**



**Management and  
Operations**



**Environmental  
Services**

[www.jacobs.com](http://www.jacobs.com)

**JACOBS**



# Monday Panel Highlight Summary

## Engaging Canadian Communities in the Siting of Waste Facilities

### Panel Session 3

As for all Tier One nuclear nations, public acceptance for the initiatives dealing with the management of wastes from nuclear activities is essential for the industry to continue and for major projects to proceed. With so many projects underway in Canada now, this panel will share the experiences of both industry proponents and host communities on broad and on project-specific bases. Please join us on Monday morning in Room 105 B at the PCC.

## Canadian Policy and Program Forum

### Panel Session 13

On Monday afternoon Canadian waste management policies and programs will be featured in a panel discussion among Canadian senior government, regulatory and industry officials.. With so much happening in the Canadian Waste management, decommissioning and environmental remediation (WMDER) sector, this panel will provide an excellent primer for those interested in understanding the current and changing landscape “north of the border”. Join us in Room 102B at the PCC from 1:30 – 5:00 PM.

## Policies and Successes with WIR and S3116 of the NDAA

### Panel Sessions 14 and 15

Please plan to attend these two back-to-back panel sessions on Monday afternoon. Learn the ins and outs of the US DOE Waste-Incidental-to-Reprocessing (WIR) policy and the similar S3116 policies promulgated in the Ronald Reagan National Defense Authorization Act of 2005. The first panel will present the material from a policy maker’s perspective and the second panel will discuss the recent successes at the West Valley, Savannah River and Idaho sites from the regulators perspectives as well as those of the US DOE.. PCC Room 103 AB from 1:30 PM until 5:00 PM.

## Future Vision - What will the DOE Complex Look Like in 2020?

### Panel Session 16

Do you know where the cleanup of Department of Energy sites will take the future of the DOE complex? They can’t all become wildlife refuges, or can they? Twenty plus years into the cleanup efforts, these future use questions are becoming much more relevant. How will DOE revitalize those assets? Attend this panel, Session 16 - DOE 2020, to hear which road DOE leadership is on, and whether the communities are on board. A private sector perspective, including insight on how DOE can be sure to appropriately value its assets, will round out what is certain to be an informative and lively panel! Room 104AB.

## Hot Topics and Emerging Issues in Commercial US LLRW Management

### Panel Session 17

This panel will focus on emerging issues in commercial LLW management in the US from the perspective of five active members of the Low-Level Radioactive Waste Forum, Inc. State, compact, federal and industry officials will share their views on a variety of timely and significant topics related to low-level radioactive waste management and disposal. Room 105B PCC from 1:30 – 3:10 PM.

## Culture – the Linchpin for Safety

### Panel Session 20

This panel will focus on the critical role that culture plays in establishing and maintaining a safe work environment. While knowing the requirements, following the procedures, taking hands-on training courses, attending safety-focused workshops, and following pre-work check lists are all elements of a safety program, the linchpin that holds them all together is culture. And while it sounds simple, developing a strong safety culture is very difficult. So join us to hear our panelists share in a spirited discussion of the importance of culture (aka leadership and trust) in building and sustaining successful safety programs. Room 105B PCC 3:15 – 5:00 PM.

# Phoenix by Night Walking Tour –

## *Blending the Old and the New*

On Monday Night we will sponsor an all new walking tour. Please join us again to explore some of the diverse historical and cultural aspects of downtown Phoenix. Starting from the Hyatt, this newly created tour route will be led by the Downtown Phoenix Ambassadors and will visit several fascinating points of interest, all close in to the PCC including the new Hotel Palomar, St. Mary’s Church, City Scape and the downtown Westin Hotel and more.

You will enjoy complementary appetizers at a couple of our stops while enjoying stories of Phoenix from its time as an old west town to its current day, modern rebirth. We highly recommend comfortable walking shoes and a light jacket.

Tickets are \$15.00 per person and can be obtained at the Registration desk. Tour leaves at 7PM at the Monroe Street entrance to the Hyatt. The tour will last approximately 3 hours. See you there!



# Doing the Right Things Right

Fluor is a leader in the integration and execution of complex projects supporting national security. Fluor excels under challenging conditions by adhering to strict conduct of operations and maintaining open communication channels to safely deliver the Department of Energy's highest priority missions.



**FLUOR**<sup>®</sup>

*Safe. Efficient. Success.*

**Fluor Government Group**  
2300 Clarendon Blvd., Suite 1110  
Arlington, Virginia 22201  
703.351.1204

© 2013 Fluor Corporation. All Rights Reserved. ADGV087313