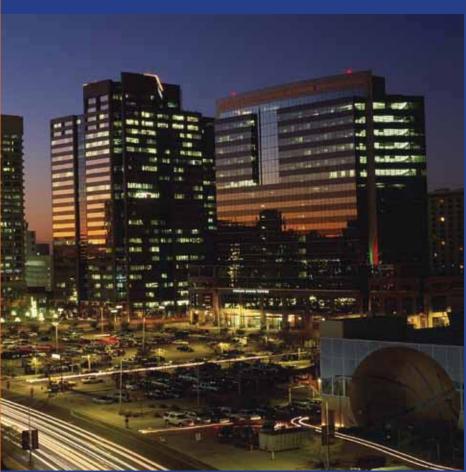


# WM Symposia

Non-profit organization dedicated to education and opportunity is pleased to present



# WM2010

Improving the Future by Dealing with the Past

**Final Program** 

March 7 - 11, 2010
Phoenix Convention Center, West Building
Phoenix, Arizona

# WM Symposia

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## WM2010 Theme "Improving the Future by Dealing with the Past"

It gives me great pleasure to welcome you to the 36th Annual Waste Management Conference, WM2010.

Now in our third year in Phoenix, the conference continues to grow and develop. In recognition of the growing drive towards new reactor builds and the need to demonstrate that nuclear waste management is well developed, we have adopted the theme 'Improving the Future by Dealing with the Past'.

The technical program is comprehensive with over 500 papers and nearly 90 technical sessions and panels and of course complemented by an extensive exhibition.

There will be the opportunity for networking both in the formal activities but also in the range of informal and social events organized both by the Conference and participating companies.

The aim of the WM Board and the Program Advisory Committee is to put on a program that you find interesting, stimulating and informative. If you have ideas on how to improve the conference, please let us know.

I would like to thank the WM team for their efforts and our sponsors for their contributions that enhance what we can accomplish. Thanks also to our attendees and exhibitors who make the conference so exciting.

We are a non-profit organization with the aim of promoting education and opportunity and your participation helps us to further these objectives.

I hope you have a very profitable time.



Fred Sheil Chairman - WM Symposia Sellafield Ltd, United Kingdom



## March 7 - 11, 2010

The annual Waste Management
Conference, presented by WM
Symposia (WMS), a non-profit
organization dedicated to education
and opportunity in waste management,
is widely regarded as the premier
international conference for the
management of radioactive materials
and related topics. Now for the 36th
year, the WM2010 Conference will
convene in the Phoenix Convention
Center (PCC), located at 111 N. Third
Street in Phoenix, Arizona. WM2010
will be held in the West Building, across
from the Hyatt Regency Phoenix.

For the latest news and conference updates onsite, please visit <a href="http://www.wmsym.org.">http://www.wmsym.org.</a>



Twitter: @WMSymposia - #wmsym2010



Facebook: WMSymposia

## **WM2010 Schedule of Events**

All Sessions will take place at the Phoenix Convention Center - West Building unless noted otherwise

### SATURDAY, March 6, 2010

7:00 a.m. – 8:00 p.m.	Guest Tour – <i>Grand Canyon* - Bus Loading at Hyatt Regency</i>
8:00 a.m 4:30 p.m.	Roy G. Post Foundation Fundraising Golf Tournament – The Raven Golf Club
1:00 p.m 5:00 p.m.	Registration Open – <i>Lower Level</i>
5:00 p.m 6:00 p.m.	Individual PAC Meetings by Track for WM2011 Topic Development – Hyatt Regency
6:00 p.m. – 9:30 p.m.	PAC Meeting and Dinner – Hyatt Regency

### SUNDAY, MARCH 7, 2010

8:30 a.m 3:00 p.m.	WM Board of Directors Meeting - Hyatt Regency Phoenix
9:00 a.m 5:00 p.m.	Nuclear Manager Training Workshop* – Level One
12:00 p.m 4:00 p.m.	Guest Tour – Sonoran Desert Hike*- pickup at Hyatt Regency
1:00 p.m 8:00 p.m.	Registration Open – <i>Lower Level</i>
3:00 p.m 4:00 p.m.	Post Foundation Trustees Meeting - Hyatt Regency Phoenix
3:00 p.m 4:00 p.m.	First Time WM Attendee Orientation – Level One
4:00 p.m 4:45 p.m.	Student Assistant Training – Level One
5:00 p.m 8:00 p.m.	Welcome Reception and Exhibition Opening – Lower Level, Exhibit Hall

### MONDAY, MARCH 8, 2010

AI, MARCH O, ZUIU	
7:00 a.m 5:00 p.m.	Registration Open – Lower Level
7:00 a.m 8:00 a.m.	Speaker's Breakfast - Level Three
7:30 a.m 11:00 a.m.	ASME Radwaste System Committee Meeting – Level One
8:00 a.m 10:00 a.m.	Opening Plenary Session – Level Three
8:30 a.m 9:30 a.m.	Guest Program/Continental Breakfast - Level Three
9:30 a.m 6:00 p.m.	Exhibit Hall Open – Lower Level
10:00 a.m 5:00 p.m.	Technical Sessions 2 - 24 - Level One
12:00 p.m 1:30 p.m.	Keynote Luncheon – Level Three
2:30 p.m 3:00 p.m.	Refreshment Break - Lower Level, Exhibit Hall
4:30 p.m 6:00 p.m.	International Welcome Reception – Lower Level, Exhibit Hall
6:00 p.m 7:30 p.m.	Students and Young Professionals Reception – Level One

### TUESDAY, MARCH 9, 2010

<u> JAY, MARCH 9, 201</u>	<u>u</u>
7:00 a.m 8:00 a.m.	Speaker's Breakfast – <i>Level Three</i>
7:00 a.m 5:00 p.m.	Registration Open – <i>Lower Level</i>
8:30 a.m 9:30 a.m.	Guest Program/Continental Breakfast – Level Three
8:30 a.m 5:00 p.m.	Technical Sessions 25 – 52 <i>– Level One</i>
9:00 a.m 12:00 p.n	n. IFSOUP Meeting
9:30 a.m 6:00 p.m.	Exhibit Hall Open – <i>Lower Level</i>
12:00 p.m 1:30 p.n	n. Honors and Awards Luncheon – Level Three
2:30 p.m 3:00 p.m	. Refreshment Break in Exhibit Hall – Lower Level
4:30 p.m 6:00 p.m.	Best of Arizona Reception in Exhibit Hall – Lower Level
6:00 p.m 7:30 p.m.	. Women of Waste Management (WoWM) Networking Reception – Level One

### WEDNESDAY, March 10, 2010

7:00 a.m 8:00 a.m.	Speaker's Breakfast – Levei Inree
7:00 a.m 5:00 p.m.	Registration Open – <i>Lower Level</i>
8:30 a.m 9:30 a.m.	Guest Program/Continental Breakfast – Level Three
8:30 a.m 5:00 p.m.	Technical Sessions 53 – 81 – <i>Level One</i>
9:30 a.m 1:30 p.m.	Exhibit Hall Open – Lower Level
9:30 a.m 1:30 p.m.	Guest Tour – Arizona Mills Outlet* Bus – pickup Hyatt Regency
12:00 p.m1:30 p.m.	ASME ICEM 2010/2011 Orientation and Planning Meeting - Level One
2:30 p.m 3:00 p.m.	Refreshment Break - Level One
6:30 p.m 10:00 p.m.	Networking Reception & Dinner - Rustler's Rooste*- pickup at Hyatt Regency

### THURSDAY, MARCH 11, 2010

7:00 a.m 5:30 p.m.	Guest Tour – Sedona & Native American Ruins* pickup at Hyatt Regency
7:00 a.m 8:00 a.m.	Speaker's Breakfast – Level One
7:00 a.m 12:00 p.m.	Registration Open – <i>Level One</i>
8:30 a.m 12:00 p.m.	Technical Sessions 82-89 – Level One
8:30 a.m 9:30 a.m.	Guest Program/Continental Breakfast - Level One
9:00 a.m 5:00 p.m.	Radioactive Waste Packaging, Transport., & Disposal Workshop*
12:00 p.m 3:00 p.m.	WM2011 PAC Meeting and Luncheon – Level One

<sup>\* -</sup> Separate Registration Fees

Subject to change, please see the Insight Newsletter and signage onsite for changes.

## **Meeting Contacts & WMS Officers and Directors**

### **WM2010 Planning Committee**

Fred Sheil, General Chair

**Gary Benda**, Program Advisory Committee (PAC) Chair/Deputy Managing Director

**Linda Lehman**, Deputy PAC Committee Chair **Bernard Vigreux**, European Coordinator

### **Meeting Contacts**

WMS Managing Director - James W. Voss

E: jamesvoss@wmarizona.org

V: +1 520-696-0399 F: +1 520-615-8997

Deputy Managing Director & Program Advisory Committee (PAC) Chair - Gary A. Benda

E: gbenda@wmarizona.org

V: +1 803-345-2170 F: +1 803-345-2170

Deputy PAC Chair - Linda Lehman

E: <u>llehman@wmarizona.orq</u>

V: +1 612-867-9725 F: +1 509-376-4336

Conference Newsletter "Insight"
Editors: Linda Ulland and Linda Lehman

E: Ilehman@wmarizona.org

Meeting Planner - Mary E. Young, CMP

E: mary@wmarizona.org

V: +1 520-696-0399 F: +1 520-829-3550

**Exhibits & Sponsorships** 

E: exhibits@wmarizona.org

**Technical Papers Administrator - Stacey Cope** 

E: papers@wmarizona.org

Registration & Housing - Jená Pinson

E: onlinereg@wmarizona.org

**WM Symposia Corporate Officers** 

Fred Sheil, Sellafield Ltd. - Chairman of the Board

James Gallagher, Gallagher Consulting - President

Steven Kadner, Canberra Aquila Inc. - Treasurer

John Mathieson, UK NDA - Secretary

**WM Symposia General Counsel** 

James Glasgow, Pillsbury Winthrop

### **WMS Board of Directors**

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Paul Crawley, Consultant

**Dorthy Davidson, AREVA, NP** 

Raul Deju, EnergySolutions

George Dials, B&W Technical Services Group

James Fiore, Consultant

James Gallagher, Gallagher Consulting Group

William T. Gregory III, Vinculum

Lawrence Harmon, Project Enhancement Corp.

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Nancy Rothermich, Lawrence Berkley National Lab

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Gary Benda, Cavanagh Services Group, Inc.

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James Glasgow, Pillsbury Winthrop

John Hurley, Consultant

Alec E. Kelley, Professor Emeritus

Hiroshi Kuribayashi, Consultant

James G. McCray, Professor Emeritus, U of A

C. Clint Miller, Pacific Gas & Electric Co.

Takao Nakajima, JAIF & Kurihalant Co., Ltd.

Mamoru Numata, JGC Technologies Research

## WM2010 Program Advisory Committee (PAC)

### WM2010 PAC Chair Gary Benda, Cavanagh Services

WM2010 Deputy PAC Chair Linda Lehman, CH2M Hill PRC

**Track Co-Chairs & Track Number** Kim Auclair, KD Auclair & Assoc. (9 Harry Babad, Consultant (1 Gabriele Bandt\*, TÜV NORD EnSys Hannover (3 Tom Brouns, Pacific Northwest

National Laboratory (2 Connie Callan, National Educational Technology Solutions (8 John Coffman, DeNuke Services (3 John Dalton\*, UK NDA (8 Jas Devgun, Sargent & Lundy (6 Leif Eriksson, Consultant (2 Erich Evered, TerranearPMC (7 Albert Freitag, Burns & Roe (6 **Lawrence Harmon,** *Project* 

Enhancement Corporation (5 James Hylko, CW Services, LLC (9 **Angie Jones,** AMEC Earth and

Environmental (7

Mark Lewis, EnergySolutions (4) John Mathieson\*, UK NDA (1 Mark Matthews, Matthews, Inc (1 C. Clint Miller, PG & E (4 Colleen Owens, DeNuke (3 Fred Sheil\*, Sellafield Sites (6 Wolfgang Steinwarz\*, Siempelkamp (4

Donald Wood, GaeaTech Services(1 Chuan-Fu Wu, US DOE (2 Richard Yoshimura, SNL (5

### **PAC Members**

Hugh Abbott\*, Consultant Sue Aggarwal, New Millennium Nuclear Technologies William Austin, WSRC Frederic Bailly\*, AREVA Nuclear Cycle Del Baird, CDM Federal Programs Bob Benedict, INL Ed Bentz, E. J. Bentz & Assoc. Remi Bera\*, AREVA Robert Berry, Foxfire Scientific Ned Bibler, SRNL Jennifer Biedscheid, Washington TRU Solutions Dale Bignell, WA Closure Hanford Enrique Biurrun\*, DBE Tech. Gmbh Dick Blauvelt, Navarro Research and Engineering, Inc Elizabeth Bowers, US DOE- Richland

Frazier Bronson, Canberra Steve Brown, SHB Inc. Larry Camper, US NRC Chris Chadwick, Porvair Filtration Grant Charters, New Millennium Nuclear Technologies Donald Clark, DEC Enterprises Ray Clark, US EPA Hans Codee\*, CORVA N.V. Judy Connell, Fluor Gov. Group Michael Connolly, Battelle Energy Alliance Dorothy Davidson, AREVA NP Ramesh Dayal\*, Consultant J. Rick Dearholt, CDM Rick Demmer, INL Murthy Devarakonda, Washington TRU Solutions, LLC George Dials, B&W Technical Svcs Paul Dickman, US NRC David Eaton, INL ICP Terri Fellinger, WSRC Jim Fiore, Consultant Mark Frei, Consultant James Gallagher, Gallagher Cons. Critz George, Consultant Kurt Gerdes, US DOE - EM April Gil, US DOE - YMP Eugene Gleason, Nuclear Management Associates, LLC. Donald Goebel, SEC Welford Goldston, WSRC Sal Golub, US DOE Anja Graf\*, Forschungszentrum KA John Greeves, Talisman William Gregory, Vinculum Kenneth Guay, USDOE NNSA YSO Jackie Hacker, Shaw E&I Harry Harmon, PNNL Kathryn Haynes, Southeast Compact Commission Bob Hiergesell, SRNL Steven Houser, Cabrera Services Betty Humphrey, Weston Solutions Leslie Jardine, Consultant Myron Kaczmarsky, The Shaw Group Stan Kosiewicz, Weston Solutions John Kristofzski, CH2M Hill Heinz Kröger\*, TÜV NORD EnSys Hannover Christian Ladirat\*, CEA Valrho Leonel Lagos, FIU Kun Lee\*, KAIST (Korea) Maria Lindberg\*, Studsvik UK Ltd Louis Londe, ANDRA John Longenecker, Longenecker & Associates Paul Macbeth, US DOE -RL

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Margaret MacDonell, ANL

## **Conference Registration**

### **Registration Categories**

**Full Technical Registration** includes four days of the conference, receptions, Monday Keynote Lunch, Tuesday Awards Lunch and Wednesday Exhibit Hall lunch, the conference proceedings as well as the Wednesday evening event.

**Two Day Technical Registration** includes any two consecutive days of the conference, receptions, lunches and proceedings. You may register for either Monday and Tuesday or Tuesday and Wednesday. If registering for Monday and Tuesday, the Sunday night Welcome Reception is also included. If registering for Tuesday and Wednesday, the Wednesday evening event is also included.

**One Day Technical Registration** includes one day of the conference, reception, lunch and proceedings. However, if registering for Wednesday, the Thursday morning attendance and the Wednesday evening event are included.

**Student Registration** - see Full Technical Registration description. Available to full-time students less than 35 years old.

**Speakers/Panelists** - please note that all attendees of the WM2010 conference, *including speakers*, *panelists and Co-Chairs*, must register for the conference in one of the listed categories.

**Exhibit Hall Only Registration** - access to Exhibit Hall only including refreshment breaks and receptions on Sunday, Monday and Tuesday evenings. No access to technical sessions except specially noted in program schedule.

**Guest Registration** – access to social events include Sunday, Monday and Tuesday evening receptions in the Exhibit Hall as well as the Wednesday evening event and morning guest breakfasts. Guest badges do not permit access to the technical sessions.

Guests are defined as a spouse or a partner accompanying a paid registrant. Guests or partners working in the nuclear industry, or business associates do not qualify and must obtain a separate Exhibit Hall pass.

### **Onsite Registration Fees**

Full Technical	\$1,025
2 Day Tech – Monday/Tuesday or Tuesday/Wednesday	\$845
1 Day Tech – Monday, Tuesday or Wednesday/Thursday	\$725
Full-Time Student	\$35
Sunday: Nuclear Manager Training Workshop	\$195 each
Exhibit Hall Only	\$520
Guest Registration	\$250
Lunch Ticket – Monday <i>or</i> Tuesday	\$50 each
Lunch Ticket – both Monday & Tuesday	\$75
Reception – Sunday, Monday or Tuesday	\$30 each
Rustler's Rooste Dinner on Wednesday evening	\$75

### **Payment Policies**

If you have pre-registered for the conference, but not paid for some reason, payment is required before a name badge can be printed and access allowed to the conference. If we are unable to verify that your organization has paid for your registration, we may request a credit card at the time of check-in to charge for payment.

Purchase Orders or Training Requisition forms **DO NOT CONSTITUTE PAYMENT.** 

Checks are to be made payable to: WM Symposia or WM2010 Conference.

Credit cards accepted: Visa, MasterCard, and American Express. All payments must be made in US Dollars.

Bank transfers are not accepted.

### Cancellation & Substitution Policy

Refunds will not be granted after <u>January 29, 2010;</u> nor will they be given to no-shows after the conference. No substitutions are permitted after February 12, 2010.

### **Special Needs**

WMS Staff will be glad to help with any special needs (i.e. physical, dietary). Please see a Manager at the Registration Desk for assistance.

### **Translation Services**

Please visit the Registration Desk for assistance if you should need translation services during the conference. WMS PAC Members who are multilingual have volunterred to assist others as needed.

All WM2010 sessions are presented in English.

### First Aid

If first aid assistance is needed, please notify any WMS, PCC Security or a hotel staff member.

Each meeting room at the PCC has a Security Monitor System that is a direct link to the Security department for emergencies as well as nonemergency help.

The PCC is also equipped with Automated External Defibrillators (AED) throughout the building. An AED is a device about the size of a laptop computer that analyzes the heart's rhythm for any abnormalities and, if necessary, directs the rescuer to deliver an electrical shock to the victim. This shock, called defibrillation, may help the heart to reestablish an effective rhythm of its own.

### **On-Site Registration Desk Hours**

Saturday, March 6	1:00 PM - 5:00 PM
Sunday, March 7	1:00 PM - 8:00 PM
Monday, March 8	7:00 AM - 5:00 PM
Tuesday, March 9	7:00 AM - 5:00 PM
Wednesday, March 10	7:00 AM - 5:00 PM
Thursday, March 11	7:00 AM - 12:00 PM

### **Exhibit Hall Hours**

Sunday, March 7	5:00 PM - 8:00 PM
Monday, March 8	9:30 AM - 6:00 PM
Tuesday, March 9	9:30 AM - 6:00 PM
Wednesday, March 10	9:30 AM - 1:30 PM

### Ribbons

Please stop by the Registration Desk to collect your registration ribbons which include Presenter, Co-Chair, PAC member, Country name and more!

If you are a presenter, the Speaker & Co-Chair Check-in Desk located on Level One, Room 101A will also have ribbons available.

### **Smoke Free Arizona Act**

The Phoenix Convention Center is a smoke-free facility complying with the Smoke-Free Arizona Act. The Smoke-Free Arizona Act restricts smoking in public places and workplaces including but not limited to bars, restaurants, workplaces, stadiums, reception areas, theatres, and designated non-smoking hotel rooms.

Should you wish to smoke, please look for the designated smoking areas outside of the building.

### Cyber Cafés

Cyber Cafés will be located in the Lower Level of the PCC in the Exhibit Hall and on Level One. Attendees will be able to access email and print messages as well as itineraries.

### **Hotel Welcome Desks**

Be sure to visit our Welcome Desks at the Hyatt Regency Phoenix and the Wyndham Phoenix. Staffed by local convention and visitor bureau staff, you will find information on downtown Phoenix as well as get assistance with any questions you may have about Phoenix.

The Welcome Desks will be open Sunday thru Tuesday and are located in the lobby of the hotels.

### **Hotel Accommodations**

For hotel assistance on-site, visit the Aquila Travel Desk and Sherry Roberts-Chavez in the Registration area, Lower Level of the PCC during registration desk hours. You may also reach her by phone at 800-595-6257 or email at <a href="mailto:sherry@aquilatravel.com">sherry@aquilatravel.com</a>.

**Hyatt Regency Phoenix** P: +1 602-252-1234 122 North Second Street, Phoenix, AZ 85004

**Wyndham Phoenix** P: +1 602-333-0000 50 East Adams Street, Phoenix, and AZ 85004

**Hilton Suites Phoenix** P: +1 602-222-1111 10 East Thomas Road, Phoenix, AZ 85012-3114

**Holiday Inn Express** P: +1 602-452-2020 620 N. Sixth Street, Phoenix, AZ 85004

**Radisson Hotel Airport North** P: +1 602-220-4400 427 North 44th Street, Phoenix AZ 85008

### **Phoenix Sky Harbor Airport**

http://phoenix.gov/skyharborairport

Sky Harbor is conveniently located just three miles east of downtown Phoenix. The airport has three terminals – Terminal 2, Terminal 3 and Terminal 4 – each with its own parking garage, shops, restaurants, and ground transportation. Ground transportation includes light rail, shuttles, taxis and car rentals.

Sky Harbor's easily accessible Rental Car Center houses all the airport rental car company counters and fleets. A multi-colored "Rental Car Shuttle" provides free transportation from the airport curb at the baggage claim level to the Rental Car Center, just west of Sky Harbor.

### **Car Rental Options**



800-331-1600

www.avis.com

Discount Code: A198399



800-736-8222

www.enterprise.com

Discount Code: 50C0395 Group Number: WMS

Reservations can be booked online by entering account number or through our airport locations or at the Hyatt Downtown Phoenix location.



800-654-2240 www.hertz.com

Meeting CV Code: 019D0009

### SuperShuttle Shared-Ride Van Service To and From Airport

www.supershuttle.com +1 602- 244-9000

WM2010 Discount code: 57BN3

\$12 per person/one way-all major credit cards and cash are accepted; pay online or directly to the SuperShuttle driver. Personal checks are NOT accepted on board.

Advance reservations are required for your return to the airport. Call at least 24 hours in advance of your departure time. Reservation agents will suggest pick up time from your hotel.

### **Metro Light Rail Services**

### www.valleymetro.org

The METRO light rail system features state-of-the art vehicles that include oversized air conditioning units, tinted windows, and door entries level with station platforms for easy, no-step boarding. Each vehicle has interior and exterior security cameras, emergency intercom systems, audible station announcements, and lighted message boards.

METRO light rail and Valley Metro bus share the same fare system. An all-day pass for \$3.50 is good on both local bus and light rail.

<u>Metro stations near the PCC:</u> Van Buren and Central Avenues; Washington and Central Avenues; and 3<sup>rd</sup> Street and Jefferson.

<u>Metro station near the Hilton Suites:</u> Thomas and Central Avenues.

Metro station near the Radisson Phoenix Airport North: 44<sup>th</sup> Street and Washington.

### **Taxis**

Three taxi companies have contracted with Sky Harbor Airport to provide service; you may choose any taxi you wish from the waiting line.

Rates with AAA Cab are \$17.00 to the Hyatt Regency or Convention Center if requested before departure.

AAA Cab +1 602-437-4000 Allstate +1 602-275-8888 Discount +1 602-266-1110

## **Copper Square DASH - Downtown Shuttle**

Use the Copper Square DASH to explore downtown Phoenix and catch a ride to the State Capitol. Just look for the copper-colored DASH buses. One comes around every six minutes at any of the DASH stops that are marked by special signs. It's convenient, fast and **free** transit service provided by the city of Phoenix Public Transit Department with support from the Downtown Phoenix Partnership.

For current DASH route information, call +1 602-495-1500 or visit <a href="https://www.coppersquare.com">www.coppersquare.com</a>.

### Lunches

Monday and Tuesday lunches are ticketed events with programs while Wednesday lunch will be a casual lunch in the Exhibit Hall. These lunches are included with a full technical or individual day registration fee.

Exhibitors and Guests who would like to purchase a separate ticket to Monday and Tuesday lunches may do so for \$50 each or \$75 for both days at the Registration Desk. Add-on tickets will not be sold for Wednesday lunch.

Meal tickets are required for the lunches. Please remember to bring your ticket to every meal and be prepared to give it to the staff members at the entrance. Food orders cannot be changed as meal counts are guaranteed in advance. Special requests such as Vegetarian meals will be given tickets to give to your server for your special meal.

Please remember that meal tickets are nonrefundable. Meals are not guaranteed to anyone arriving more than 20 minutes late to meal functions.

A list of local restaurants will be available, as well as cash food sales at the concession stands in the PCC.

## Wednesday Exhibit Hall Lunch Coupon Added for WM2010!

For 2010, WMS has added a lunch for Wednesday in the Exhibit Hall and Marketplace from 11:30 AM – 1:30 PM so you have just a little more time to visit our great exhibitors and network. During that period, we will also announce the winners of the Exhibitors' giveaways and booth drawings.

Attendees with Full Technical Registration or the Wednesday One or Two Registration will receive coupons valid for lunch at one of the concession stands inside the Exhibit Hall. You'll have your choice of a salad, sandwich or bratwurst with all the fixin's.

If your registration category does not include lunches, you will also be able to purchase what you'd like at the concession stands.

Either way, you'll want to make sure you stay to hear if you've won any of the great prizes our exhibitors will be giving away at their booths.

Thank you to The Shaw Group for sponsoring the Wednesday Exhibit Hall Lunch!

### PCC Food Court - 11 am-2 pm North Building

### Fresh Gourmet To Go

Prepackaged sandwiches (\$7), wraps (\$7) and salads (\$8.25-\$10).

#### Crust

16-inch pizzas (\$13.50-\$17.50); pasta (\$9-\$10); calzone-style wraps (\$8-\$9); salads (\$7-\$7.50).

### Bistro on 3rd

Combo meal - two sliders and either sweet potato or regular fries (\$9). Sliders include beef and cheese, with breaded chicken and blue-cheese sauce.

### Urban Wok

Combo meal - two entrees and rice (\$9). Entrees include beef and broccoli or orange peel chicken and pepper steak.

### **Tortillas**

Burritos (\$8), tacos (\$8), and quesadillas (\$8).

### City Central Coffee - opens at 7 am

Regular coffee (\$1.50, \$2 and \$2.50) and cappuccino (\$3.25, \$3.75 and \$4.25).

### **Refreshment Breaks**

Refreshments will be served Monday thru Thursday at 9:30 AM and Monday thru Wednesday at 2:30 PM in the Exhibit Hall at the PCC. Wednesday afternoon and Thursday morning refreshments will be served near the session rooms on the first floor.

Thank you to **Central Research Laboratories**, **MHF Services** and **PacTec**, **Inc.** for sponsoring the Refreshment Breaks.

### **Conference Proceedings**

The conference proceedings are included with a full technical registration. Following the conclusion of the conference, *approximately June 2010*, attendees will be mailed a CD-ROM of the conference proceedings to the address listed on their registration materials.

### **Conference Evaluations**

We value and appreciate your comments and suggestions. You will receive a conference evaluation via email on Friday, March 12<sup>th</sup>. All completed evaluations will be entered into a drawing to receive a \$500 certificate of savings towards the WM2011 Conference.

### **Lost and Found**

Please visit the Registration Desk for any lost and found items during the conference.

### "INSIGHT" Daily Conference Newsletter

Insight, the WM Symposia daily conference newsletter, reports on technical topics addressed during the sessions, exhibitor and sponsor information, industry and important daily conference news and annoucements.

The first issue, Sunday/Monday, will be pre-stuffed in the attendee packets. Be sure to pick up your Tuesday and Wednesday/Thursday copies at the Registration Desk, Exhibit Hall and near the meeting rooms on the First Level of the PCC.

Linda Ulland, University of Minnesota and Linda Lehman, CH2M Hill Plateau Remediation Company are the Insight Editors and Contributing Editors are: Mike Berriochoa, Washington River Protection Solutions; Lynette Bennett and Maren Disney, CH2M Hill Plateau Remediation Company and Todd Nelson, Washington Closure Hanford. Email <a href="mailto:llehman@wmarizona.org">llehman@wmarizona.org</a> with any updates during the conference.

### **UPS Store** P: +1 602-251-0135

The UPS Store located in the PCC offers office support and copy services Monday–Friday from 7:00 AM - 6:00 PM and Saturday from 8:00 AM - 1:00 PM.

### **Twitter and Facebook Updates**

WM2010 will be online with updates throughout the conference. On Facebook, you can find the conference at WM Symposia.

And if you tweet, please post to our hash tag of #wmsym2010 so we can see all your Twitter comments.

### **Speaker and Co-Chair Check-In**

WMS asks that all Presenters (oral, panelist and poster) and Session Co-Chairs check-in at the Speaker and Co-Chair Counter so they may confirm their attendance and receive any updates on their sessions.

Speakers who are not checked in at the Speaker's Breakfast will have their presentation shown as canceled on the presentation boards at the session room entrance or their poster space canceled.

### **Speaker and Co-Chair Breakfast**

On the day of their presentations or sessions being co-chaired, all Presenters and Session Co-Chairs are required to attend the 7:00 AM Speakers' Breakfast at the PCC, Level Three. During the breakfast, tables will be assigned to each session so that all oral session and poster session Co-chairs, can sit down together with presenters and panelists for the sessions to discuss and organize their sessions.

### **A/V Presentation Support**

To better provide assistance to last minute changes to PowerPoint presentations, we have provided a schedule for A/V assistance. Presenters should identify when assistance is available for their session. Memory sticks and CD's with PowerPoints may also be dropped off for uploading. The audio-visual support staff will be available to assist presenters with their presentations as listed below:

Date	Time	Open / Reserved	Sessions
Sunday, March 7	3:00 PM - 7:00 PM	Loading All PowerPoints	All 1 - 89
Monday, March 8	7:00 AM - 9:00 AM	Mon. AM Loading/ Transfer/Set-Up	Sessions 1- 10
	9:00 AM - 12:30 PM	Reserved for Monday PM	Sessions 11 -24
	12:30 PM - 2:00 PM	Monday PM Transfer/Set-Up	Sessions 11 - 24
	2:00 PM - 5:00 PM	Loading All PowerPoints	All 25 - 89
Tuesday, March 9 7:00 AM – 9:00 AM Tuesday AM Transfer/Set-Up		Tuesday AM Transfer/Set-Up	Sessions 25 – 38
	9:00 AM - 12:30 PM	Tuesday PM Loading	Sessions 39 - 52
	12:30 PM - 2:00 PM	Tuesday PM Transfer/Set-Up	Sessions 39 - 52
	2:00 PM - 5:00 PM	Loading All PowerPoints	All 53 - 89
Wed., March 10	7:00 AM - 9:00 AM	Wednesday AM Transfer/Set-Up	Sessions 53 - 68
	9:00 AM - 12:30 PM	Wednesday PM Loading	Sessions 69 - 81
	12:30 PM - 2:00 PM	Wednesday PM Transfer/Set-Up	Sessions 69 - 81
	2:00 PM - 5:00 PM	Loading All PowerPoints	Sessions 82 - 89
Thurs., March 11	7:00 AM - 9:00 AM	Thursday Transfer/Set-Up	Sessions 82 - 89

## **Special Meetings, Training and Events**

### Saturday, March 6, 2010

## Program Advisory Committee (PAC) Meeting 6:00 PM - 9:30 PM

This pre-conference meeting for PAC/IPAC Volunteers and their guests will be held at the Hyatt Regency Phoenix. Individual tracks may hold meetings at 5 pm before the formal meeting starts at 6 pm.

### Sunday, March 7, 2010

### Nuclear Manager Training Workshop 9:00 AM - 5:00 PM

This one-day workshop is aimed at new managers in the nuclear field. Topics covered will include engineering leadership, strategy development, performance tools, managing staff, managing risk, managing nuclear safety, and managing a project to successful completion.

The workshop is chaired and coordinated by Dr. Jas Devgun. This training is sponsored by the WM Symposia as a service to the nuclear community.

Registration fee of \$195.00 per person, see Registration Desk for onsite registration.

### **First Time WM Attendee Orientation**

Join us for this open session to learn more about the WM Symposia and the annual WM conferences at 3:00 PM – 4:00 PM.

### **Student Assistant Training Session**

Calling all Student Assistants! Be sure to attend our Training Session from 4:00 PM – 4:45 PM. We'll cover the basics of your job duties as an assistant and give you some time to meet other students to kick off your WM2010 conference experience.

### **WM2010 Opening Welcome Reception**

A Welcome Reception officially opens the WM2010 Conference and Exhibition Hall from 5:00 PM – 8:00 PM. Come visit more than 175 exhibitors and meet new and old friends. If you received your name badge in the mail, you're good to go. If you registered after the Early Bird deadline or are one of our International guests, stop by the Registration Desk anytime after 1 PM and before the reception starts. Light hors d'oeuvres will be served.

Thank you to **Fluor** for sponsoring the Welcome Reception.

### Monday, March 8, 2010

## ASME Radwaste Systems Committee Meeting 7:30 AM - 11:00 AM

The annual meeting of the ASME Radwaste System Committee will be held on Monday morning, beginning with a Continental Breakfast.

Any questions, please contact Mike Nolan at <a href="mike.nolan@moellerinc.com">mike.nolan@moellerinc.com</a>

### WM2010 Plenary Session 8:00 AM - 10:00 AM

WM2010 will begin with a Plenary Session that will feature world leaders speaking on the pressing issues being faced by Waste Management in 2010 and beyond.

Join your fellow delegates for Continental Breakfast before the program begins on the Third Level of the PCC. Panelists include:



**Dr. Ines Triay**Assistant Secretary
US DOE Environmental
Management

**Dr. Wang Ju**Vice President, Bejing
Research Institute of
Uranium Geology;
Head, HLW Disposal
Program, China National
Nuclear Corporation





**Bruce Stanski**President
Fluor Government Group

### **International Welcome Reception**

Please join us for the International Welcome Reception in the Exhibit Hall from 4:30 PM - 6:00 PM. We are appreciative of our international delegates for their participation and contributions that make WM2010 a truly worldwide event. You are encouraged to attend this year's reception, recognizing our 600+ non-US attendees. Traveling to Phoenix from over 40 countries, these attendees represent many ongoing and emerging markets. In keeping with WMS' mission of education and opportunity, participation of a number of these global delegates is sponsored by the IAEA and WMS. Light hors d'oeuvres will be served.

### **Student and Young Professionals Reception**

All students, young professionals and conference attendees looking to meet and mingle with the next generation are welcome at the Student and Young Professionals Networking Reception from 6:00 PM – 7:30 PM, just after the close of the International Welcome Reception. Here's your chance to meet our student attendees and find out more about the next generation of WM professionals.

### Tuesday, March 9, 2010

International Forum on Sustainable Options for Uranium Production (IFSOUP) 9:00 AM - 12:00 PM

Co-Chairs: *Michelle Rehmann*, WM Symposia *Rod Grebb*, HER Creative Solutions, LLC

Fueling the fleet of new reactors expected with the nuclear renaissance is a parallel renaissance in uranium production. The International Forum on Sustainable Options for Uranium Production (IFSOUP) is a network for members of industry, regulatory bodies and NGOs to discuss and implement steps to achieve more sustainable uranium production practices – and thereby avoid developing new legacy sites.

In keeping with the theme of WM2010 – *Improving the Future by Dealing with the Past* – this session of IFSOUP will examine how legacy sites have affected the current economic, regulatory, and social conditions associated with primary uranium production.

Panelists will include *Larry Camper*, US NRC, and *Dr. Horst Monken-Fernandes*, IAEA, along with leaders from industry and regulatory bodies. The session will examine the current economic and global production activities for uranium production and the sustainable practices that are currently being implemented by industry and regulatory bodies.

All registrants interested in sustainability and uranium recovery are welcome to attend the IFSOUP roundtable discussion on Tuesday at no additional charge.

### **Best of Arizona Reception in Exhibit Hall**

Experience the Southwest at the Best of Arizona Reception from 4:30 PM to 6:00 PM. We'll highlight the state of Arizona, serving hors d'oeuvres from around this great state, and beverages including Margaritas.

## Women of Waste Management Presentation and Reception

Women delegates - and anyone interested in opportunities for women in our industry - should attend the **Women of Waste Management Reception**.

**Rebecca Schmidt,** Director of Congressional Affairs for the US NRC, will be the featured speaker for the Women of Waste Management Presentation & Networking Reception. Her presentation will begin at



6:00 PM and the reception follows immediately in the same room. Share experiences and learn about opportunities, while enjoying a glass of wine and light hors d'oeuvres from 6:00 PM – 7:30 PM.

Thank you to **Fluor** for sponsoring the Women in Waste Management Presentation & Reception.

### Wednesday, March 10, 2010

Join us for an evening of networking, dinner and cowboys at **Rustler's Rooste**.

Included in a Full Technical Registration, additional tickets are available for \$75.00 per person and can be purchased until Tuesday afternoon at the Registration Desk. The event includes transportation, two drink tickets and all the food and dancing you desire.

Buses will pick up at the Hyatt Regency Phoenix at 6:00 PM and the event will begin with cocktails at 6:30 PM. Buses will return guests to the conference hotels (Hyatt & Wyndham) beginning at 8:30 pm. The last bus will depart Rustler's Rooste approximately 9:45 pm.

If you'd prefer to drive yourself to the event, you may pick up directions at the Registration Desk.

For more information on Rustler's Rooste, visit www.rustlersrooste.com.

### Thursday, March 11, 2010

### Featured Closing Session 82 - The Nuclear Renaissance 8:30 AM - 10:30 PM

This session is focused on updating the progress being made on considering applications for new nuclear power plants under 10 CFR Part 52, a rule which NRC promulgated over 20 years ago at a time when no new nuclear power plants were even being considered in the US. Little interest was shown in the specifics outside the NRC except for the forerunner organization to the NEI, the Atomic Industrial Forum. Nuclear power detractors in Congress showed almost no interest as did those institutions which had normally been against constructing and operating nuclear power plants. Now over the past four years there has been a significant resurgence in the move towards building and operating new nuclear power plants in this country and a number of commitments have either been made or are on the verge of being made to construct new plants. This session is focused on how well the new rule is working to ensure that safe and economical new plants will be constructed to meet the nation's growing, clean electrical energy supply needs.

The panel will include:

Steve Burns, General Counsel, US Nuclear Regulatory Commission. Mr. Burns was directly involved in formulating Part 52 as legal assistant to then Commissioner and later Chairman Ken Carr, who along with Chairman Lando Zech were primarily responsible for leading the development of Part 52. General Counsel Bill Parlor was also a leader in the process at that time. Steve Burns has presided over the resurgence of new plant applications using Part 52 in his role as Deputy General Counsel and now as General Counsel and will provide a unique view of just how well the new rule is working from the NRC's point of view.

**Bob Evans,** Vice President, Enercon Utility Services has led the preparation of a significant number of the new applications for several clients and will provide his view on how Part 52 is working from the owner/operator/licensee's perspective.

Jim Little, Senior Vice President, Nuclear Energy Program, URS Power Group, who is a veteran of the nuclear power industry going back to his Westinghouse days will share his vision on the prospects for new nuclear plants in the US.

**Ed Helminski**, President, Exchange Monitor Publications, Inc., well known expert in the national and international nuclear arena, will provide an overview of the prospects for new plants in the US

and the acceptance of them by Americans as a part of our electricity supply future.

The panel will be co-chaired by **Jim Gallagher**, a pioneer in the early design and construction of pressurized water power reactors and **John Bradburne** who formulated the strategy at NRC which led to the promulgation of Part 52.

### WM2011 Program Advisory Committee (PAC) Meeting and Luncheon 12:00 PM - 3:00 PM

This conference wrap-up and planning lunch meeting will be held at the PCC on Level One.

### Radioactive Waste Packaging, Transportation, and Disposal Workshop 8:00 AM – 5:00 PM Thursday and Friday

This training workshop covers radioactive material shipments, including typical decommissioning mixed waste. The workshop is designed to provide students with a detailed understanding of 49 CFR, focusing on the specific problems associated with radiological waste. The instruction is based on the requirements of DOT, EPA, DOE, and NRC. Direct trainee participation is required.

The instruction of this course will include highway and rail transport, with greater emphasis on highway. This training is offered to comply with the "Hazmat Employee", general and function specific requirements of 49 CFR 172 Subpart H.

Participants will receive a certificate and copies of training materials, including a copy of 49 CFR parts 100 to 185 and various shipper toolbox materials. Training is conducted under a program requiring self-study, classroom instruction, and hands-on workshops preparing shipment paperwork.

The trainer for this course is **Paul Jones**, a 20-year veteran of shipping projects and trainer of shipping brokers for commercial, DOD, DOE, and NRC projects.

A certificate is provided to the student upon satisfactory completion of this training. To obtain a certificate, the trainee must complete a written exam with a score of 80% or higher.

This course is sponsored by WM Symposia as a service to the nuclear community. Registration Fee of \$545.00 per person, see Registration Desk for onsite registration.

### **Onsite Schedule Changes**

Be sure to check the daily Insight Newsletter, WMS Facebook page and Twitter account for updates and changes.



# **Contracting and Opportunities Sessions**

For WM2010, five contracting sessions are scheduled from Tuesday – Thursday describing upcoming opportunities in the waste management industry. The final session is a Contracting Workshop focusing on US Federal procurements.

**Please Note:** these sessions are open to all attendees including Exhibitors who may attend at no additional cost.

### Panel Session 40 Contracting Opportunities in the UK with the Nuclear Decommissioning Authority (NDA) Tuesday - 1:30 PM - 3:15 PM

This panel will focus on the opportunities at the NDA sites in the United Kingdom (UK). The panel will consist of representatives of the NDA and the main M&O Contractors currently running the sites. The NDA representatives will outline the forward program of competitions and the Site License Companies will present their procurement plans giving the audience the opportunity for further discussion.

# Panel Session 53 US DOE Procurement and Contracting Opportunities Wednesday - 8:30 AM - 10:15 AM

The panel will focus on the procurement process and what lessons learned and best practices have been developed by US DOE and NNSA over the last year. Senior DOE Contracting Officials will share their visions.

This panel compliments Panel 54 which focuses on US DOE *Contractor's* Procurement and Contracting activities.

# Panel Session 54 US DOE Contractor's Procurement and Contracting Opportunities Wednesday - 10:15 AM - 12:00 PM

This panel session will focus on procurement and contracting opportunities with the US DOE's contractors. US DOE encourages its prime contractors to obtain goods and services from small and disadvantaged businesses. Award fee is based partially on the contractor's success in achieving specific goals for subcontracts with small and disadvantaged businesses.

Goods and services being considered for subcontracting include: decontamination and decommissioning services, remediation services, transportation and disposal of radioactive waste, health physics equipment and services, emergency response planning and training, lab services, R&D products, waste treatment services, maintenance services, A/E services, and professional consulting.

This session complements Session 53 which focuses on contracting activity directly with the US DOE.

## Panel Session 69 Panel/Oral: Developments in the American Recovery and Reinvestment Act (ARRA)

This combined Panel and Paper Session will focus on the ARRA lessons learned after one year of implementation. Perspectives from both government

distribution, contracting mechanisms, accomplishments and future activities.

and industry officials will be given on funds

Wednesday - 1:30 PM - 5:00 PM

This session compliments Panels 53 and 54 which focus on US DOE and Contractor's Procurement and Contracting activities.

### Panel Session 83 US Federal Government Contract "Capture" Workshop Thursday - 8:30 AM - 12:00 PM

This workshop focuses on the targeting, planning, pursuing and winning a contract, generally known as the "CAPTURE" effort. Companies and the government alike spend millions of dollars on CAPTURE efforts. Companies rise or fall by the contracts won or lost. Pursuing contracts without success can cripple a companies' growth. Needless to say good contracts and contractors lead to good work and economic benefits.

This workshop will provide professionals with a better understanding of the tactical and strategic management processes involved in the overall effort of "CAPTURE".

## **Scholarships, Honors and Awards**

In keeping with the WMS' mission of providing education and opportunity, the following awards and scholarships will be presented during the Tuesday Honors and Awards Luncheon beginning at 12 PM on the Third Level of the PCC.

This luncheon is included in the Full Technical, Tuesday Only; Monday/Tuesday and Tuesday/Wednesday registration fees. Please be sure to bring your lunch ticket. Add-on tickets are available for Exhibitors and Guests, please see the Registration Desk to purchase.

## Roy G. Post Foundation Scholarships

These scholarships are awarded in memory of Dr. Roy G. Post. The Scholarships and the Foundation carry on Dr. Post's vision of education in this field and honor the Founder of the annual Waste Management Conference.

Scholarships will be presented to:

Omar Al-Qudah, University of Texas – El Paso, Kevin Arpin, Kansas State University, Braden Goddard, Texas A&M University, Christina J. Leggett, University of California – Berkeley,

**Jessica M. O'Brien**, University of Ontario, Institute of Technology,

Hayes F. Stripling, IV, Texas A&M University, Thea R. Tadlock, Missouri University of Science & Technology, and

**Jamie L. Warburton**, University of Nevada – Las Vegas.

### WM Symposia and James A. Glasgow Scholarship at the University of Arizona Law School

This scholarship is given recognition of the contributions of James Glasgow, Esq., in support of WMS, and is designed to assist a second or third-year law student who demonstrates a meaningful interest in environmental law.

**David Houston** and **Priyanka Sundareshan** received the scholarship for the 2008/2009 academic year. Mr. Houston is in his third year and Ms. Sundareshan is a second year student.

## **Best Oral Presentation Winners 2009**

### **Best Oral Presentation/Paper**

"Shipment of Spent Nuclear Fuel from the Nuclear Research Institute Rez Plc, Czech Republic to the Russian Federation for Reprocessing" Presented by **Josef Podlaha**, Nuclear Research Institute Rez PLC (Czech Republic). Session 48, Abstract 9422. (Session Sponsor: Alexander Thrower).

### **Honorable Mention - Oral Presentation/Paper**

"Characterization of Solids in Residual Wastes from Single Shell Tanks at the Hanford Site, Washington, USA"

Presented by Kenneth Krupka, Kirk Cantrell, Todd Schaef, Bruce Arey, William Deutsch, Michael Lindberg, PNNL; Steve Heald, ANL (USA). Session 20, Abstract 9277 (Session Sponsor: Jeffery Lyon).

### **Best Poster Winners 2009**

### **Best Poster Presentation/Paper**

"Decision Support Tool for Prioritization of Surveillance and Maintenance Investment" Paper 9342, Session 67E, **Leydi Velez**, (DOE Fellow), Florida International University; **Thomas Conley**, UT – Battelle LLC/ORNL (USA).

### Honorable Mention - Poster Presentation/Paper

"Meteor Burst Remote Monitoring System Deployment at US DOE Hanford" Paper 9375, Session 50C. **Andrea Hart, Jack Joyce**, MSE Technology Applications, Inc; **Andy Ward, Chris Strickland**, PNNL (USA).

### Program Advisory Committee Award

WMS has established the Program Advisory Committee (PAC) Award to annually recognize an individual whose outstanding contributions have helped make and keep the annual Waste Management Conference the world's premier technical conference on the management and disposal of nuclear waste.

The 2010 WMS Program Advisory Committee Award will be presented to *Linda Ulland*, University of Minnesota.

### WMS/ASME Sarge Ozker Award

Named in honor of M. Sacid (Sarge) Ozker and established in 1980, this award is bestowed for distinguished service and eminent achievement in the commercialization of nuclear power/ energy with particular emphasis in the field of radioactive waste management.

It is presented by the Nuclear Engineering Division -Radwaste Systems Operating Committee of the American Society of Mechanical Engineers (ASME).

The 2010 Sarge Ozker Award will be presented to **Tom Snyder**.

## WMS Wendell D. Weart Lifetime Achievement Award

The WMS Wendell D. Weart Lifetime Achievement Award recognizes the long-term commitment of the recipient to solving major nuclear waste challenges, which may include education, research, public policy, or implementation of solutions for managing nuclear wastes, and whose actions have contributed to the resolution of significant nuclear waste management issues.

The 2010 WMS Lifetime Achievement Award, sponsored by Sandia National Laboratories, will be presented to *Leif G. Eriksson*, *PG*.

# WM2011 Exhibition and Marketplace

The WM2011 Conference will be held at the Phoenix Convention Center West Building February 27 – March 3, 2011 with approximately the same layout.

Many of our exhibitors are long-time supporters of the WMS Conferences. Returning exhibitors are granted first right of refusal for the same booth location and reservations are taken onsite at the conference.

An initial deposit to hold the same booth location and reserve the Early Bird Rate of \$2,995 is due by June 15, 2010. If a deposit is not received, booths are returned to inventory and open sell for new exhibitors will begin July 19, 2010.

For more information on exhibiting, please visit www.wmsym.org – Exhibitors tab.

You may also contact WM Symposia at 520-696-0399 or by email at <a href="mailto:exhibits@wmarizona.org">exhibits@wmarizona.org</a>.



## The Roy G. Post Foundation

Non-Profit Organization Dedicated to Education in the Safe Management of Nuclear Materials

# Post Professional Opportunities Activities

### **Jobs and Internships**

• Job Placement and Internship Postings

### Student Support

- Stipends for Student Assistants
- Complimentary Student Registration for competing in the Student Poster Competition
- Cash prize for winning Student Poster in Session 24
- Complimentary student hotel accommodations.

### Networking

- Students and Young Professionals Networking Reception on Monday, March 8<sup>th</sup>
- International Youth Nuclear Congress/Young Professionals Roundtable.

### Career Growth for Women

 Women of Waste Management Presentation featuring Rebecca Schmidt of the US NRC and Networking Reception on Tuesday, March 9<sup>th</sup>.

For more information on the Roy G. Post Foundation, please visit www.roygpost.org.

### **Guest Program and Tours**

### **Guest Program Receptions**

New for WM2010! All guests are invited to gather each morning – Monday thru Thursday – at 8:30 AM in the same room as the Speaker & Co-Chair Breakfast. This room is on the third level of the PCC on Mon.-Wed, and on the first level of the PCC on Thursday. We'll set aside an area for you to enjoy breakfast before heading out to a tour or on your own for a day of exploring the Valley of the Sun.

Stop by to see old friends and meet new from around the world. We'll have information available from the Phoenix Convention & Visitors Bureau to help you plan your day.

### **Important Tour Information**

Pre-registration for tours is recommended, you may register onsite if space is still available. There may be additional charges for onsite registrations.

All tours depart from the lobby of the Hyatt Regency Phoenix. Boarding time is 15 minutes prior to scheduled departure. Be sure to pack a jacket, hat, sunscreen and your camera for the outside events.

The Guest Program is organized by WMS and provided by Detours of Arizona, Take a Hike Arizona and other vendors. WM Symposia reserves the right to cancel any tour not reaching the eight person minimum.

# Saturday March 6, 2010 Grand Canyon, Sedona & the Navajo Nation 7:00 AM - 8:00 PM \$125.00/pp

The day begins with a scenic drive through the Sonoran Desert to Sedona. Next, we'll pass through Oak Creek Canyon, a scenic byway of red walled canyons to emerge in a Ponderosa Forest.

At the South Rim of the Grand Canyon National Park, guests will enjoy a three-hour guided tour and an opportunity to walk the rim, shop, have lunch, or just relax with a view. Returning to Phoenix from the canyon, we will enjoy views of the Navajo Nation and Painted Desert, with a stop at an authentic Navajo Trading Post.

Tour includes lunch, national park entry fees and bottled water.

## Sunday March 7, 2010 Sonoran Desert Guided Hike 12:00 PM - 4:00 PM

\$50.00/pp

Venture into the world's most diverse desert and discover winding trails, hidden canyons and beautiful vistas, with the company of a local expert.

This six mile hike is considered a *Moderate Hike*. This excursion is on a trail that is a bit more remote and as such has no restroom facilities. However, we'll make a rest stops before and after the hike. It has some nice elevation gain which takes us into a Hidden Valley, where guests will discover ancient petroglyphs.

Healthy snacks, bottled water and lunch will be provided along with the use of the backpacks, trekking poles, all entry and permit fees and a First Aid / CPR Certified Guide. Hikers will be required to sign a Waiver of Liability.

### Monday March 8 - Wednesday, March 10

- Scottsdale Phoenix City Highlights Tour
- Apache Trail Exploration
- Piestewa Peak Guided Hike

Cancelled due to lack of minimum registrants.

# Wednesday, March 10, 2010 Arizona Mills Outlet 9:30 AM - 3:30 PM \$20.00/pp

Take advantage of this wonderful opportunity to tackle the famous Arizona Mills Outlet Shopping Center. For a complete list of available stores, visit the mall's website at <a href="https://www.arizonamills.com">www.arizonamills.com</a>.

Shuttle van takes you door-to-door leaving from the Hyatt Regency Phoenix. Shuttle departures are scheduled 9:30 am, 10:30 am, 11:30 am and departures from the Outlet at 1:30 pm, 2:30 pm and the final return at 3:30 pm.

## Thursday, March 11, 2010 Sedona & Native American Ruins 7:00 AM - 5:30 PM \$95.00/pp

You'll first have the chance to explore the ancient Sinaguan Indian ruins of the Montezuma Castle, that existed along a busy trade route over 1,000 years ago. Our tour will spend approximately 3.5 hours in Sedona, where you can explore on foot, visit galleries and shops, or get a psychic reading.

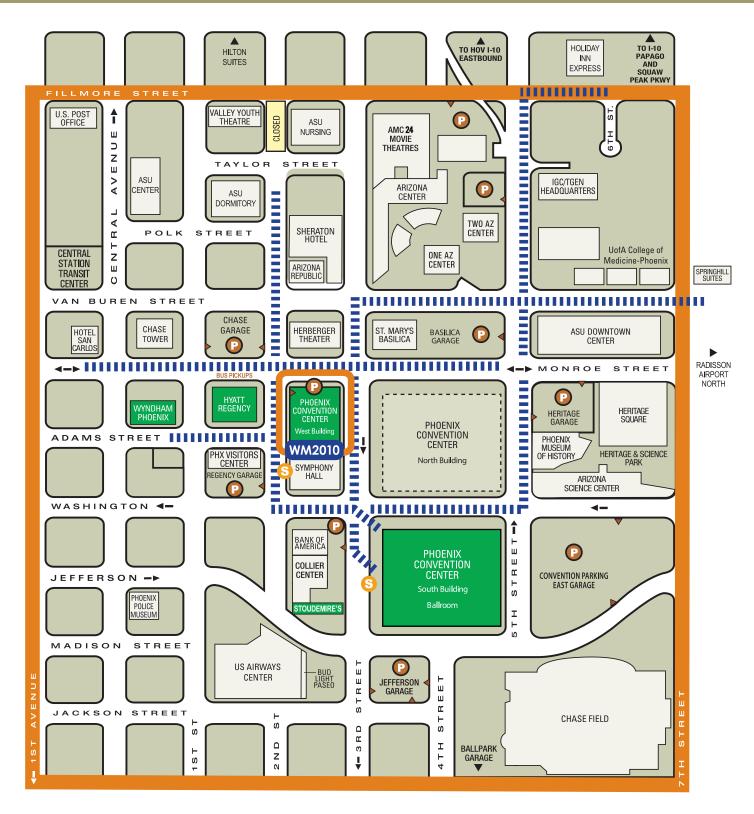
Tour includes lunch, national monument entry fees and bottled water.

#### Main St. University Dr. Apache Blvd. Broadway Rd. Price-101 Freeway / Apache Boulev Smith-Martin / Apache Boulevard Alma School Rd. McClintock / Apache Boulevard Dorsey / Apache Boulevard McClintock / Apache Boulevan Smith-Martin / Apache Boulev Price-101 Freeway / Apache B Sycamore / Main Street Mill Avenue / Third Street Veterans Way / College Avenutable University Drive / Rural 15. 12th Street / Washington 12th Street / Jefferson 16. 24th Street / Washington 24th Street / Jefferson 17. 38th Street / Washington 202 Priest Drive / Washington Center Parkway / Washing 18. 44th Street / Washington Зусатоге MESA **LINE SECTION 5** Dobson Rd. STATIONS **4.77 MILES** Price Fwy. 11. Roosevelt / Central Avenue 12. Van Buren / Yat Menue 13. Washington / Central Avenue 14. Washington / Central Avenue 14. 374 Street / Washington 374 Street / Washington 374 Street / Washington ē 10. McDowell / Central Avenue Campbell / Central Avenu Indian School / Central Av 9. Encanto / Central Avenue Montebello / 19th Avenue Central Avenue / Camelba 8. Thomas / Central Avenue 7. Osborn / Central Avenue 7th Avenue / Camelback Smith-Martin Ln. Rio Salado Pwy. McClintock Dr. Докзей Ги. Curry Rd. Tempe Town Lake TEMPE TOWN LAKE BRIDGE TEMPE Rural Rd. College Ave. Park-and-Ride Location .9vA IIiM LEGEND Light Rail Alignment Papago Park ---- Free Airport Bus Station Location Center Pkwy. KMd UINIBS LINE SECTION 4 5.36 MILES Priest Dr. 202 7S 41817 143 153 Sky Harbor International Airport 15 4104 Sall RIVER 32nd St. 75 H142 LINE SECTION 3 4.29 MILES **LINE SECTION 2** [2] 2.99 MILES 18 419 L **PHOENIX** 12th St. LINE SECTION 1 2.27 MILES PHOENIX CONVENTION CENTER 50 E. ADAMS ST., PHOENIX, AZ 85004 111 N. 3RD ST., PHOENIX, AZ 85004 122 N. 2ND ST., PHOENIX, AZ 85004 HYATT REGENCY PHOENIX Central Ave. **WYNDHAM PHOENIX** JUN AVE. 13 avA rtta f . 9vA rtte r Bethany Home Rd Indian School Rd Washington St. Jefferson St. Union Pacific RR Camelback Rd. METRO Campbell Ave. Encanto Blvd. McDowell Rd. /an Buren St. Roosevelt St. Papago Fwy. Buckeye Rd. .9vA rttS Osborn Rd.

METRO LIGHT RAIL LINE

### PHOENIX CONVENTION CENTER

## Walking & Parking Guide



### WM2010 HOTELS

Hyaft Regency Phoenix • 122 North 2nd Street • Phoenix, AZ 85004 • (602) 252-1234

Wydham Phoenix • 50 East Adams Street, Phoenix, AZ • (602) 333-0000

Holiday Inn Express • 620 North 6th Street • Phoenix, AZ • (602) 452-2020

Radisson Hotel Phoenix Airport North • 427 North 44th Street • Phoenix AZ 85008 • (602) 220-4400

Hilton Suites • 10 East Thomas Road • Phoenix, AZ 85012 • (602) 222-1111

### **LEGEND**



▶ Parking Garage Entrance

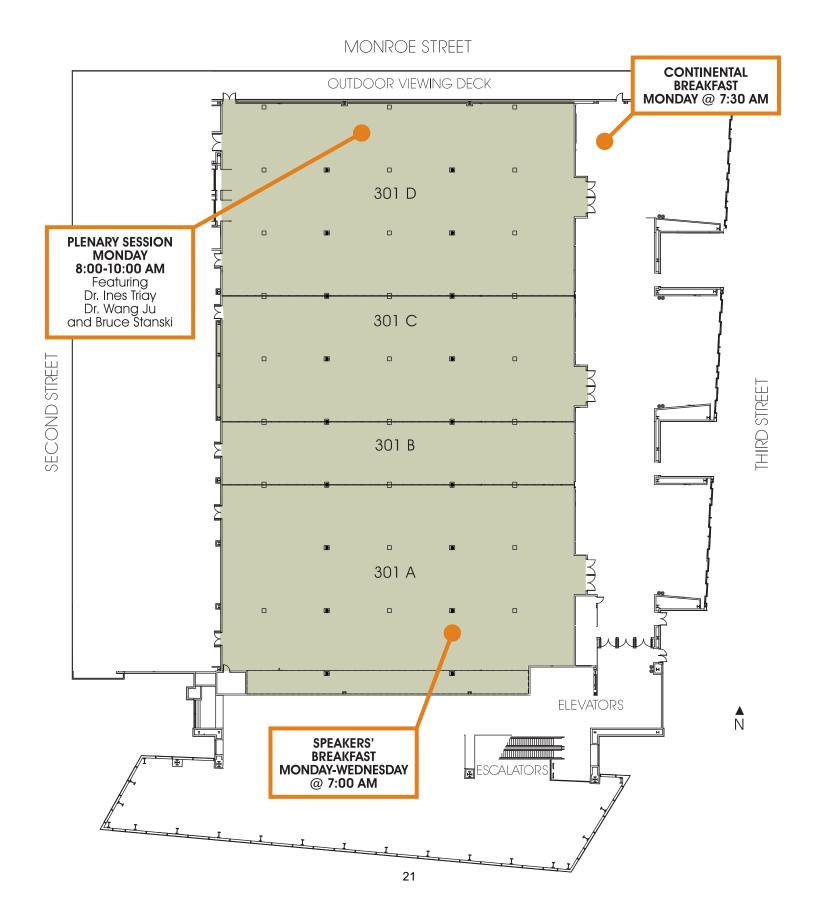
### WM2010 PHOENIX

March 7-10, 2010

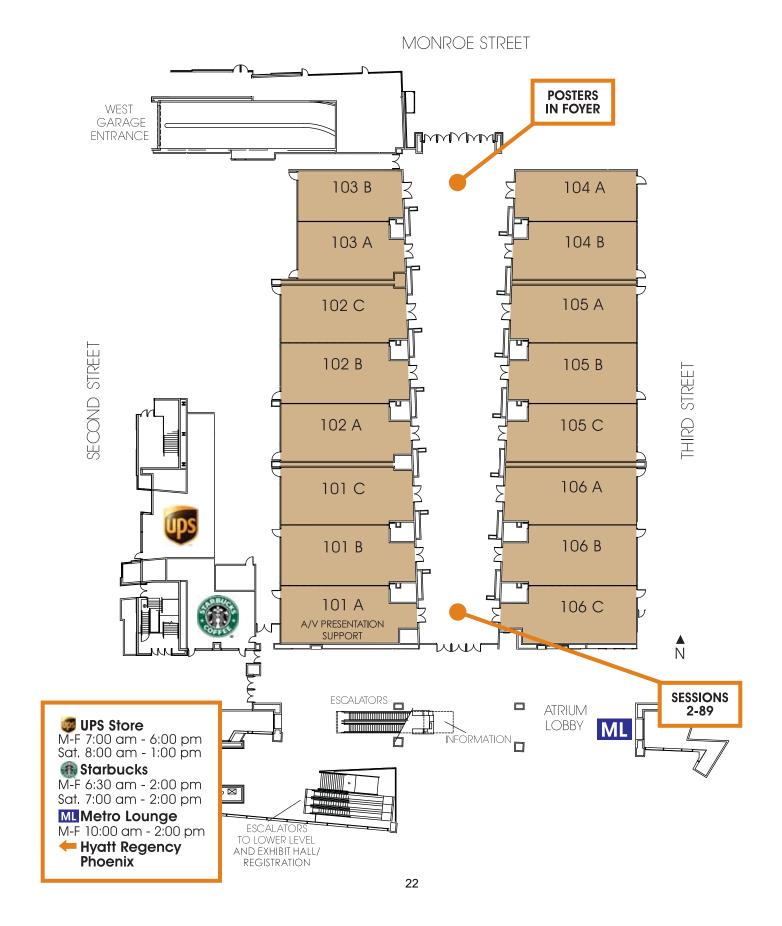




# PHOENIX CONVENTION CENTER West Building | West Ballroom | 300 Level



## West Building | 100 Level | Street Level



## **WM2010 Common Acronyms List**

\* Country acronyms are US, unless noted otherwise

**AEA** Atomic Energy Agency/Atomic Energy Act of 1954

AECL Atomic Energy of Canada Ltd AFR Away-From-Reactor Storage ALARA As Low As Reasonably Achievable ANDRA Agence Nationale pour la Guestion des Déchets Radioactifs (France)

ANL Argonne National Laboratory

**ANL** Argonne National Laborator **ANS** American Nuclear Society

**ARM** Accelerator-Produced Radioactive Material

ARRA – American Recovery and Reinvestment Act of 2009

**ASME** American Society of Mechanical Engineers

**BNL** Brookhaven National Laboratory **BWR** Boiling Water Reactor

**CE&T** Public Communication, Participation, Education & Training **CEA** Commissariat a l'Energie Atomique (France)

**CERCLA** Comprehensive Environmental Response, Compensation and Liability Act **CFR** Code of Federal Regulations **CH-TRU** Contact-Handled Transuranic Radioactive Waste

Ci Curies

CPP Crosscutting Policies & Programs

D&D Decontamination &
Decommissioning
DAW Dry Active Waste
DCS Dry Container Storage
DNFSB Defense Nuclear Facility Safety
Board

**DOD** United Sates Dept of Defense **DOE** United States Dept of Energy **DOT** United States Dept of Transportation **DWPF** Defense Waste Processing Facility

EC European Commission
EDF Electricite' de France (France)
EIS Environmental Impact Statement
EM Environmental Management
ENEA National Agency for New
Technologies, Energy and Environment
(Italy)

ENVIRONET- IAEA Network on Environmental Management &Remediation EPA US Environmental Protection Agency EPRI Electric Power Research Institute ER Environmental Remediation ES&H Environment, Safety & Health

**FUSRAP** Formerly Utilized Sites Remedial Action Program

GAO United States Government Accountability Office GIS Geographical Information System GNEP Global Nuclear Energy Partnership GTCC Greater Than Class C Low-Level Radioactive Waste H&S Health and Safety
HEPA High Efficiency Particulate Air
HEU Highly Enriched Uranium
HLW High Level Radioactive Waste

IAEA International Atomic Energy Agency (Austria)

**ICRP** International Commission on Radiological Protection

**IFSOUP** International Forum on Sustainable Options for Uranium Production

**ILW** Intermediate Level Radioactive Waste

INL Idaho National Laboratory
IPAC International Program Advisory
Committee

**IPSN** Institute de Protection et de Surete (France)

JAEA Japan Atomic Energy Agency (Japan)

**KAERI** Korea Atomic Energy Research Institute (Korea)

LAW Low-Activity Radioactive Waste
LANL Los Alamos National Laboratory
LBNL Lawrence Berkeley National Lab
LEU Low Enriched Uranium
LL/ILW Low- and Intermediate-Level
Radioactive Waste
LLNL Lawrence Livermore National Lab
LLRW/LLW Low Level Radioactive Waste

M&I Management & Integration
M&O Management & Operation
MRS Monitored Retrievable Storage
MW Mixed Hazardous and Radioactive
Wastes

LSA Low Specific Radioactive Activity

LWR Light-Water Reactor

NAGRA National Cooperative for the Disposal of Radioactive Waste (Switzerland)

NCRP National Council on Radiation Protection

**NDA** Non-Detectable Activity or Nuclear Decommissioning Authority

NDAA National Defense Authorization Act of 2005

**NEA** Nuclear Energy Agency (France) **NEI** Nuclear Energy Institute

**NEPA** National Environmental Policy Act of 1969

**NFDI** National Facility Disposition Initiative

NNL- National Nuclear Laboratory (UK) NNSA National Nuclear Security Admin. NORM Naturally Occurring Radioactive Material

NPP Nuclear Power Plant

**NRC** United States Nuclear Regulatory Commission

NTS Nevada Test Site NWTRB Nuclear Waste Technical Review Board

NWPA Nuclear Waste Policy Act of 1982 NWPAA Nuclear Waste Policy Amendments Act of 1987

**OCRWM** Office of Civilian Radioactive Waste Management

**OECD** Organization for Economic Cooperation & Development (France) **ORNL** Oak Ridge National Laboratory

PNNL Pacific Northwest National Lab PCC Phoenix Convention Center PRA Probabilistic Risk Analysis PWR Pressurized Water Reactor

**QA** Quality Assurance **QAPP** Quality Assurance Program Plan **QC** Quality Control

**R&D** Research and Development **RCRA** Resource Conservation and Recovery Act of 1976

**RDD** Radiological Dispersion Devices **RH-TRU** Remote-Handled Transuranic Radioactive Waste

ROC Republic of China
RPV Reactor Pressure Vessel

**SKB** Swedish Nuclear Fuel and Waste Management Company

SNF Spent Nuclear Fuel

SNL Sandia National Laboratories

**SNM** Special Nuclear Material

**SRS** Savannah River Site

**SRW** Solid Radioactive Waste

**SS&S** Security, Safety, & Safeguards

**TENORM** Technologically-Enhanced Naturally Occurring Radioactive Material **TRU** Transuranic (elements with atomic number > than 92)

**TRUPACT** Transuranic Waste Package Transporter

**UK** United Kingdom

UKAEA UK Atomic Energy Authority US/USA United States of America US ACE US Army Corps of Engineers UNF Used Nuclear Fuel

**WAC** Waste Acceptance Criteria **WD** Waste Determination

**WERC** Waste-Management Education and Research Consortium

WIPP Waste Isolation Pilot Plant
WIR Waste Incidental to Reprocessing

WM Waste Management
WRAP Waste Receiving and Processing

**WS** Wet Storage

WVDP West Valley Demonstration Project

YM Yucca Mountain

## **Technical Program Schedule at a Glance**

		1	ı									
Session #	Annotated Session Titles (for full session titles, please see individual listing)	Time	Room	1: Crosscutting	2: HLW/SNF/TRU	3: L/ILW, NORM	4: Nuclear Power PI.	5: Packag./Trans.	6: D&D	7: Environ. Rem.	8: Commun., E & T	9: Safety/Security
	Monday Morning, March 8		,	WM	Sub	ject	Tra	cks	for	Refe	eren	се
1	WM2010 Plenary Session	8:00	301 C	Х								
2	Panel: Hot Topics in US DOE Environmental Management	10:00	102 A	Х								
3	Panel: Worldwide Perspectives on WM Issues	10:00	105 AB	Х								
4	Panel: The IAEA EM & ER Network - ENVIRONET	10:00	104 AB							Χ		
5	Domestic & Intl Topics in Packaging, Design & Testing	10:00	101 B					Х				
6	HLW and SNF - Processes, Technologies and Operations	10:00	101 C		Х							$\overline{}$
7	Waste Cert., Acceptance/Disposal for LLW, ILW, MW	10:00	105 C			Х						$\neg$
8	Accelerated Deactivation/Decommissioning of Facilities	10:00	106 A						Χ			
9	US DOE, Site Specific & Citizen Advisory Boards (CABs)	10:00	106 B								Х	
10	Safeguards & Consequence Mgmt - New Reactors to RDD	10:00	106 C								$\stackrel{\wedge}{-}$	Х
- 10	Monday Afternoon, March 8	10.00	1000	1	<u>                                     </u>							$\stackrel{\sim}{-}$
11	Panel: US DOE Featured Site: Hanford	1:30	102 A	TV	1					I		
12	Panel: Hot Topics/Issues in US Commercial LLW	1:30	102 A 105 AB	Х		Χ						
13	Selected Key Topics in US Commercial LLW Management	3:15	105 AB		· ·	Χ						
14	Panel: Yucca Mountain – What's Next? & Intl SNF Mgnt	1:30	104 AB		X							
15	Operating Experience and Progress of HLW and SNF	1:30	101 B		Χ							
16	Application of Innovative D&D Technologies	1:30	101 C						Χ			
17	ER Post Closure Challenges/Long Term Stewardship/LM	1:30	105 C							Χ		
18	Waste Characterization - Instrumental Solutions	1:30	106 A			Χ						
19	Communication of Technical Issues	1:30	106 B								Χ	
20	Panel: New Directions in Safety & Health	1:30	103 AB									X
21	Panel: Executive Leadership in a Strong Safety Culture	3:15	103 AB	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \								Χ
22	Worldwide WM Regulatory/Oversight Crosscutting Prog.	1:30	106 C	Х	\ \							
23	HLW, SNF, and Long-lived Alpha/TRU Waste - Posters	1:30	1st Floor		Χ							
24	Student Poster Competition: Industry Leaders of Tomorrow	1:30	Exh. Hall	Х								
	Tuesday Morning, March 9		T									
25	Panel: Emerging Issues with US DOE Prime Contractors	8:30	102 B	Х								
26	DOE Small Sites Cleanup and Waste Management	8:30	106 C	Х								
27	DOE Engineering & Technology in Reducing Risk in HLW	8:30	106 B		Х							
28	Panel: Progress, Challenges & Future of ARRA	8:30	105 AB						Χ			
29	D&D of Nuclear Facilities (Non-Power/ Small Nuclear)	10:15	105 AB						Χ			
30	Status and Plans at the US DOE WIPP	8:30	106 A		Χ							
31	Operating Exp. in the Treatment/Storage of LLW, ILW	8:30	101 B			Χ						
32	Enviro. Rem. Progress- Closure of Contaminated Sites	8:30	101 C							Χ		
33	Transportation Risks and Capturing Lessons Learned	8:30	105 C					Χ				
34	Worldwide Mgmt of Spent and Disused Sealed Sources	8:30	104 AB									Χ
35	Panel: EFCOG Review of ARRA Est. of Waste Generation	10:15	104 AB									Χ
36	Panel: Graduating Students and New Engineers	8:30	103 AB								Χ	
37	Panel: Intl Youth Nuclear Congress/Young Professionals	10:15	103 AB								Χ	
38	Posters: LLW, ILW, MW, NORM and TENORM; NPP	8:30	1st Floor			Χ	Χ					
	Tuesday Afternoon, March 9											
39	Panel: US DOE - Energy Facility Contractors (EFCOG)	1:30	102 B	Х								
40	Panel: Contracting Opportunities in the UK with the NDA	1:30	105 AB	Х								
41	Program Mgmt Improvements - Planning through Compl.	3:15	105 AB	Х							$\neg \uparrow$	$\overline{}$
42	Perspectives of Radioactive WM –Challenges/Solutions	1:30	106 C	X								$\neg$
43	Closure of Highly Radioactive Tanks/ Facilities	1:30	106 B	<u> </u>	Х							$\neg$
44	Advanced Approaches Applied to Problematic TRU WM	1:30	106 A		Х							$\neg$
45	Programmatic/Reg./Statutory Issues for LLW, ILW	1:30	101 B			Χ						$\neg$
46	D&D of US DOE Facilities	1:30	101 C						Χ			$\dashv$
	<u> </u>								- 1			

## **Technical Program Schedule at a Glance**

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Session #	Annotated Session Titles (for full session titles, please see individual listing)	Time	Room	1: Crosscutting	2: HLW/SNF/TRU	3: L/ILW, NORM	4: Nuclear Power P.	5: Packag./Trans.	6: D&D	7: Environ. Rem.	8: Commun., E & T	9: Safety, S & S
	Tuesday Afternoon, March 9 continued			WM	Sub	iect	Tra	cks	for	Refe	eren	се
47	US - FUSRAP and US Army Corp of Engineers Projects	1:30	105 C			,				Х		
48	Panel: ER Projects Contributing to the IAEA -ENVIRONET	1:30	103 AB							Х		
49	Lessons Learned in UK Enviro. Remediation Projects	3:15	103 AB							X	-	
50	Panel: NPP Waste Management - LLW Processor Issues	1:30	104 AB				Χ				-	
51	Panel: NPP Waste Management - LLW Disposal Issues	3:15	104 AB				Х				-	
52	Posters: ER; Security, Safety & Safeguards; Comm.	1:30	1st Floor	1						Χ	Χ	Х
52	Wednesday Morning, March 10	1.50	13111001									
53	Panel: US DOE Procurement and Contracting Opport.	8:30	102 B	Х						П		
54	Panel: US DOE Contractor's Procurement/Contracting	10:15	102 B	X						<b></b>		
						~				<del>                                     </del>		
55	Panel: US Commercial LLW to Modify its Class for Disp.	8:30	105 AB			X				<del>                                     </del>		
56	Panel: Disposition of US DOE High-Activity Mixed Waste	10:15	105 AB	\ \		Λ				$\vdash$		
57	Performance Assessment of Geological Disposal Systems	8:30	103 AB	Х	V					$\vdash$		
58	DOE Yucca Mtn Update: HLW/SNF Disposal	8:30	104 AB		X					$\vdash$		
59	Global Advances in Repository Sciences and Engineering	10:15	104 AB		X					<b>  </b>		<b>-</b>
60	Worldwide Technical Innovations in HLW Treatment	8:30	106 C		Χ					$\vdash$		<b></b>
61	Performance of Disposal Systems/Facilities for L/ILW	8:30	106 B			Χ				$\vdash$		<b></b>
62	Waste Optimization/Minimization During D&D	8:30	106 A						Χ			<b>—</b>
63	Transport of Radioactive Materials–Operational & Analysis	10:15	106 A					Х				<b>—</b>
64	Technical Innovations in ER and Site Closure	8:30	101 B							Х		<b>—</b>
65	Groundwater Remediation Projects	8:30	101 C							Χ		<b>—</b>
66	Reaching Out to Communities - International Experiences	8:30	105 C								Х	$oxed{oxed}$
67	Building a Nuclear Workforce for the 21st Century	10:15	105 C								Χ	
68	Posters: Crosscutting Policies, Packaging & Transp.; D&D	8:30	1st Floor	Х				Χ	Χ			
	Wednesday Afternoon, March 10											
69	Panel: Developments in the ARRA	1:30	102 B	Χ								
70	Panel: The IAEA - ENVIRONET	1:30	105 AB							Χ		
71	D&D of Nuclear Power Plants	1:30	103 AB						Χ			
72	Innovative Field Monitoring for Env. Remediation	1:30	104 AB							Χ		
73	Vitrification Experience & Glass Characterization for HLW	1:30	106 C		Χ							
74	Challenges in Mixing Technologies for Waste Retrieval	1:30	106 B		Χ							
75	Disposal Systems/Facilities/ Sites for L/ILW & MW	1:30	106 A			Χ						
76	Emerging Treatment for L/ILW,, MW, NORM/TENORM	3:15	106 A			Χ						
77	New Generation of Uranium Recovery Facilities	1:30	105 C			Χ						
78	Nuclear Power Plant Liquid and Wet Waste	1:30	101 B				Χ					
79	Nuclear Power Plant Dry Waste	3:15	101 B				Х					
80	Radioactive Material Pkging/Transportation Reg. Issues	1:30	101 C					Χ				
81	Posters: Emerging Issues and New Developments	1:30	1st Floor	Х								
	Thursday Morning, March 11											
82	Panel: New P. Plant Designs - the Nuclear Renaissance	8:30	102 B	Х								
83	Panel: Federal Government Contract "Capture" Workshop	8:30	103 AB	Х								
84	Innovative Liquid and Gas Crosscutting Filtration Systems	8:30	101 B	Х								
85	Tribal Involvement, Public Participation, Technology	8:30	101 C	1							Χ	
86	TRU Small Qty Sites - the Consolidation Option at INL	8:30	106 C	1	Х							
87	Non Instrumental Solutions	8:30	106 B	1		Χ						
88	Panel: EFCOG - Waste Management	8:30	106 A	1		X						
89	Panel: The IAEA Network on EM & Remediation	8:30	104 AB	1						Х		

Subject to change, please check signage onsite at the conference.

### March 8, Monday AM

Presenters and Session Volunteers are in Bold

### Session 01

8:00 AM - 10:00 AM

**Room 301 C** 

Panel: WM2010 Symposium Plenary Session

**Co-Chairs: James Gallagher**, *Gallagher Consulting* (USA); **Fred Sheil**, *Sellafield Ltd* (United Kingdom)

**Sponsor: James Gallagher** 

Organizers: James Voss, Gary Benda

Panel Reporter: Linda Ulland

The WM2010 Plenary Session will feature speakers discussing the pressing issues facing Radioactive Waste Management in 2010 and beyond from around the world.

Plenary Speakers: Dr. Ines Triay, Assistant Secretary for Environmental Management- US DOE; Dr. Wang Ju, VP, Beijing Research Institute of Uranium Geology, Head, HLW Disposal Program, China National Nuclear Corporation; and Bruce A. Stanski, President of the Fluor Government Group.

#### Session 02

10:00 AM - 12:00 PM

Room 102 A

Panel: Hot Topics in US DOE Environmental Management

**Co-Chairs: James Gallagher**, *Gallagher Consulting*; **Edward Helminski**, *Exchange Monitor Publications*, *Inc. (USA)* 

**Sponsor: Gary Benda** 

Organizers: James Fiore, Edward Helminski

**Panel Reporter: Leslie Jardine** 

This panel will feature senior US DOE managers speaking on the pressing issues facing the US DOE sites. Senior managers will discuss what has transpired over the last year and provide detailed direction on the future US DOE Office of Environmental Management (EM) goals and objectives.

Panelists: Dae Chung, Principal Deputy Assistant Secretary (DAS); Meryl Sykes, Chief Business Officer, DOE EM; Frank Marcinowski, DAS Technical & Regulatory Support; Jack Surash, DAS Acquisition & Contract Management; Sandra Waisley, DAS Human Capital & Corporate Services, US DOE.

### Session 03

10:00 AM - 12:00 PM

Room 105 AB

Panel: Worldwide Perspectives on Waste Management Issues

Co-Chairs: John Mathieson, NDA (United Kingdom); Mark Matthews, Matthews, Inc. (USA) Sponsor & Panel Reporter: John Mathieson Organizer: Mark Matthews

This panel will discuss the long-term management of radioactive waste from an international perspective, looking at how we deal with both legacy and new build wastes. High-level experts from around the world will give us their views on the challenges and potential solutions to issues on decommissioning, clean-up, and disposal for all waste types. Of particular interest will be how multi-national collaboration is assisting national programmes for dealing with waste.

We will hear short presentations from each panelist, which will then be followed by a moderated Q&A session with audience participation encouraged.

Panelists: Dr. Wang Ju, VP, Beijing Research Institute of Uranium Geology, Head, HLW Disposal Program, Chinese National Nuclear Corporation; Christine Gelles, Director, Office of Disposal Operations, US DOE EM; Mike D. Johnson; Executive Director, Waste & Effluent Disposition, Sellafield, Ltd; Prof. Volodymyr Tokarevsky, Former Director, State Special Company Technocentre, Chornobyl, Ukraine; Carl Reinhold Bråkenhielm, Swedish National Council for Nuclear Waste; and Dr. Dan Metlay, Senior Professional Staff, US Nuclear Waste Technical Review Board.

### Session 04

10:00 AM - 12:00 PM

Room 104 AB

Panel: How Can Networks Improve the Implementation of ER Projects? The IAEA Network on Environmental Management and Remediation -ENVIRONET

Co-Chairs: Vince Adams, US DOE (USA); Peter Booth, National Nuclear Laboratory, (United Kingdom)

**Sponsor: Donald Goebel** 

Organizers: Horst Monken Fernandes, Michelle

Rehmann

**Panel Reporter: Kim Johnson** 

This panel introduces the IAEA's Network on Environmental Management and Remediation - ENVIRONET and is the opening session for the related IAEA sessions throughout the week. The panel will discuss how Networks can improve the implementation and results of ER Projects.

Panelists: Horst Monken Fernandes, EVIRONET, IAEA (Austria); Leo van Velzen, EURSSEM, NRG (Netherlands); Peter Booth, SAFEGROUND, National Nuclear Laboratory (UK); Michelle Rehmann, IFSOUP (USA); and Abel Gonzalez, REGULATORS FORUM, Argentine Nuclear Regulatory Authority (Argentina).

### Session 05

10:00 AM - 12:00 PM

**Room 101 B** 

Worldwide Topics in Packaging Design and Testing

Co-Chairs: Richard Yoshimura, Sandia National Laboratory (USA); Olaf Oldiges, GNS mbH (Germany) Sponsor & Paper Reviewer: Richard Yoshimura Organizers: Richard Yoshimura, Paul Jones

- 10:05 Scale Testing of Battelle Energy Alliance (BEA) Research Reactor Cask (BRRC) in Support of Nuclear Regulatory Commission (NRC) Licensing 10459

  Charles Temus, AREVA Federal Services, LLC (USA)
- 10:30 Recent Experiences in Mechanical Design Assessment of Spent Fuel and HLW Casks by Competent Authority in Germany - 10093

**Frank Wille**, Bernhard Droste, Karsten Müller, Uwe Zencker, BAM Federal Institute for Materials Research and Testing (Germany)

- 10:55 Drop and Fire Testing of Spent Fuel and HLW Transport Casks at "BAM Test Site Technical Safety" 10079

  Bernhard Droste, Karsten Müller, Thomas Quercetti, Andre Musolff, BAM Federal Institute of Materials Research and Testing (Germany)
- 11:20 Static and Dynamic Calculation Approaches for Mechanical Design Assessment of Type B Packages for Radioactive Material Transport 10193

  Steffen Komann, Martin Neumann, Viktor

**Steffen Komann**, Martin Neumann, Viktor Ballheimer, Frank Wille, Mike Weber, Linan Qiao, Bernhard Droste, BAM Federal Institute for Materials Research and Testing (Germany)

### Session 06

10:00 AM - 12:00 PM

**Room 101 C** 

**HLW and SNF - Processes, Technologies and Operations** 

**Co-Chairs: James Buelt**, *Pacific Northwest National Laboratory (USA)*; **Bernard Vigreux**, *French Nuclear Energy Society (France)* 

Sponsor & Paper Reviewer: Tom Brouns Organizers: Tom Brouns, Harry Babad

- 10:05 Updating the Regulatory Framework for Spent Nuclear Fuel Reprocessing - 10127 Thomas Hiltz, Allen Croff, US NRC; Raymond Wymer, Oak Ridge National Laboratory (retired) (USA)
- 10:30 Signature Research on Spent Fuel and Nuclear Materials at the National Nuclear Laboratory, United Kingdom 10361 Zara Banfield, Chris Rhodes, Matt Clough, National Nuclear Laboratory (United Kingdom)
- 10:55 Completing the Resolution of Technical Issues Identified by Two Major Reviews of the Waste Treatment Plant - 10474 Garth Duncan, Bechtel National, Inc.; Richard Edwards, URS - Washington Group, Inc.; Walter Tamosaitis, URS Washington Division (USA)
- 11:20 Optimization of Spent Fuel Direct Disposal Technology for a Geological Repository in Rock Salt in Germany - 10504 Bernt Haverkamp, Enrique Biurrun, Wilhelm Bollingerfehr, Wolfgang Filbert, DBE TECHNOLOGY GmbH (Germany); Reinhold Graf, Gesellschaft für Nuclear-Service mbH (Germany)

### Session 07

10:00 AM - 12:00 PM

Room 105 C

Waste Certification, Acceptance and Disposal for LLW, ILW, and MW

**Co-Chairs: Lance Mezga**, Oak Ridge National Laboratory; **Keith Tucker**, Portage Environmental (USA)

Sponsor & Paper Reviewer: Kenneth Guay Organizers: Michelle Rehmann, Paul Macbeth

10:05 Measurements Taken in Support of Qualification of Processing Savannah River Site Low-Level Liquid Waste into Saltstone - 10160

Marissa Reigel, **Ned Bibler**, Alex Cozzi, Cecilia DiPrete, Savannah River National Laboratory; Jeffrey Ray, Aaron Staub, Savannah River Remediation, LLC (USA)

10:30 Overview of Nevada Test Site Radioactive and Mixed Waste Disposal Operations - 10280

Jhon Carilli, US DOE; Susan Krenzien, Navarro Research and Engineering, Inc.; Patrick Arnold, CH2M HILL - National Security Technologies; Sydney Gordon, National Security Technologies, LLC; John Wrapp, NSTec (USA)

10:55 Nevada Test Site (NTS) Radioactive Waste Acceptance Program (RWAP) and the Disposal of Unique Waste Streams - 10332 Sydney Gordon, Gregg Geisinger, Katie Tanaka, National Security Technologies, LLC 11:20 Topical Aspects of Waste Container Approval for the Upcoming KONRAD Repository - 10012

> **Holger Völzke**, Volker Noack, Manel Ellouz, BAM Federal Institute for Materials Research and Testing (Germany)

### Session 08

10:00 AM - 12:00 PM

Room 106 A

Accelerated Deactivation and Decommissioning of Facilities

**Co-Chairs: Jas Devgun**, Sargent & Lundy, LLC (USA); **Maria Lindberg**, Studsvik UK Ltd (United Kingdom)

**Sponsor: Maria Lindberg** 

Organizers: Jas Devgun, Andrew Szilagyi

Paper Reviewer: Jas Devgun

10:05 Accelerating Decommissioning at Sellafield: A New Management Approach

- 10052

Russell Mellor, Sellafield Ltd (United Vinadom)

Kingdom)

10:30 Challenges to Planning for and Executing Successful Waste Management in a Complex Decommissioning Environment – A Sellafield Perspective - 10503 Helen Cassidy, Sellafield Ltd (United Kingdom)

10:55 Expedited Release Process for the Decommissioning of Sites with Low Residual Levels - 10152

Kenneth Duvall, N.E. Research; Carol Berger, Alan Duff, **Bill Thomas**, Integrated Environmental Management, Inc; Eric Barbour, USACE (USA)

11:20 Savannah River Site R-Reactor Disassembly Basin In-Situ Decommissioning - 10499 Christine Langton, Mike Serrato,

**Christine Langton**, Mike Serrato, Savannah River National Laboratory; John Blankenship, William Griffin, Savannah River Nuclear Solutions (USA)

Session 09

10:00 AM - 12:00 PM

Room 106 B

US DOE Site Specific and Citizen Advisory Boards (CABs) - Public Involvement Makes a Difference

Co-Chairs: W.T. (Sonny) Goldston, Jeannette Hyatt, Savannah River Nuclear Solutions, LLC (USA)

Sponsor & Paper Reviewer: W.T. (Sonny)

Goldston

Organizers: Melissa Nielson, Jeannette Hyatt

10:05 Working Logic: Waste Project Management for the 21st Century - 10495 Peter Baston, IDEAS Business Technology

**Peter Baston**, IDEAS Business Technology Integration LLC; J.D. Campbell, Geosyntec Consultants; Ralph Phelps, Northern New Mexico Citizens Advisory Board (USA)

10:30 Educating Volunteers, Stakeholders, and Workers by the Use of Input/Output Analysis Graphics at Savannah River Site (SRS) - 10331

Manuel Bettencourt, SRS CAB (USA)

10:55 Effective Citizen Advocacy of Beneficial Nuclear Technologies: Being the Nuclear Voice - 10108

**Susan Wood**, Clinton Wolfe, Citizens for Nuclear Technology Awareness (USA)

11:20 Engaging Citizens - AREVA Experience in France - 10389

**Laurence Pernot**, Remi Bera, AREVA Federal Services, LLC (USA)

### Session 10

10:00 AM - 12:00 PM

Room 106 C

Safeguards and Consequence Management - Next Generation Reactors to RDD

**Co-Chairs: Kim Auclair**, KD Auclair & Associates, LLC; **Larry Regens**, University of Oklahoma Health Sciences Center (USA)

Sponsor, Organizer & Paper Reviewer: Kim Auclair

10:05 International Development of Safeguards by Design of Nuclear Facilities and Processes - 10030

**David Hebditch**, Michelle Wise, Jon Martin, Dik Third, UKAEA (United Kingdom)

10:30 Performance Evaluation of Decontamination Technologies for Dirty Bomb Cleanup - 10036

**John Drake**, US EPA; Rick Demmer, Idaho National Laboratory; Ryan James, Battelle (USA)

10:55 A First-Order Estimate of Debris and Waste Resulting from a Hypothetical Radiological Dispersal Device Incident - 10232

> **Paul Lemieux**, Joe Wood, Daniel Schultheisz, Thomas Peake, Mario Ierardi, US EPA; Colin Hayes, Molly Rodgers, Eastern Research Group, Inc. (USA)

1:30 PM - 5:00 PM

Room 102 A

Panel: US DOE Featured Site: Hanford - Accomplishments and Challenges

**Co-Chairs: Dave Brockman**, *US DOE*; **Shirley Olinger**, *US DOE - ORP (USA)* 

**Sponsor: Tom Brouns** 

Organizers: Elizabeth Bowers, Cameron Hardy

**Panel Reporter: Cameron Hardy** 

This panel session focuses on progress and technologies from the US DOE's largest and longest term nuclear legacy waste cleanup effort at the Hanford Site in South-eastern Washington State. The session will begin with an introduction, update on progress, and perspectives on cleanup challenges from DOE senior management. The introduction will be followed by two sequential panel discussions on 1) the Hanford central plateau and river corridor cleanup, and 2) tank waste remediation. Hanford Site contractors and national laboratory representatives will introduce their specific role in Hanford cleanup and highlight technology advances that are helping enable and improve progress in environmental remediation, waste management, tank waste remediation and D&D.

Panelists: David Brockman, Manager, US DOE-RL; Stacy Charboneau, US DOE-ORP; Frank A. Figueroa, President and General Manager, Mission Support Alliance; Ryan Dodd, Deputy Project Manager, Washington Closure Hanford; John Lehew, President, CH2M HILL Plateau Remediation Company; Wayne Johnson, Director Environmental Sustainability Division, PNNL; Frank Russo, Project Director, Waste Treatment Plant Project, Bechtel National; Scott A. Saunders, WRPS Technology and SST Retrieval Manager, Washington River Protection Solutions; and Tom Brouns, Manager, Environmental Health and Remediation Sector, PNNL.

### Session 12

1:30 PM - 3:15 PM

Room 105 AB

Panel: Hot Topics and Emerging Issues in US Commercial Low Level Radioactive Waste Management

**Co-Chairs: Marcia Marr**, Central Midwest Compact Commission; **Kathryn Haynes**, Southeast Compact Commission (USA)

Sponsor & Panel Reporter: Linda Beach Organizers: Marcia Marr, Kathryn Haynes

This panel will focus on the current issues in commercial low-level radioactive waste management in the US from the perspective of five active members of the Low-Level Radioactive Waste Forum, Inc.

State, compact, federal and industry views will be shared on topics such as current and future activities of the Texas Compact Commission including import/export policies and associated fees; licensing, construction, and development of the planned Waste Control Specialist' federal and commercial low-level radioactive waste disposal facilities; federal regulatory developments and perspectives from a license applicant on issues related to the classification and disposal of depleted uranium; current and future waste management and related activities of the US Department of the Army; and, updates regarding the Energy Solutions' Clive disposal facility from the operator's perspective.

Panelists: Michael S. Ford, Chair, Texas Low Level Radioactive Waste Disposal Compact Commission; Rodney Baltzer, President of Waste Control Specialists; Steve Cowne, Director of Quality and Regulatory Affairs, Louisiana Energy Services/National Enrichment Facility; Kelly Crooks, Chief of the Rad Waste Operations Division of the US Department of the Army's Joint Munitions Command; and Thomas Magette, Senior Vice President of Nuclear Regulatory Strategy at EnergySolutions, Inc. Todd Lovinger - who also serves as Executive Director of the LLW Forum - will serve as moderator of the panel.

### Session 13

3:15 PM - 5:00 PM

Room 105 AB

**Selected Key Topics in US Commercial LLW Management** 

**Co-Chairs: Virgene Ideker-Mulligan**, ARS International; **Kathryn Haynes**, Southeast Compact Commission (USA)

Sponsor & Paper Reviewer: Linda Beach Organizers: Kathryn Haynes, Linda Beach

3:20 Presentation of the Richard S. Hodes, M.D. Honor Award by Michael Mobley, Southeast Compact Commission for LLW to Larry Camper, Director, Division of Waste Management & Environmental Protection, US NRC. The award is followed by the WM2010 Richard S. Hodes, M.D. Honor Lecture.

Low-Level Radioactive Waste Management in the United States - Where Have We Been: Where Are We Going - 10417 Larry Camper, US NRC (USA)

**4:10** The Continuing Expansion of Waste Control Specialists LLC Licenses & Capabilities - 10514

**Michael Lauer**, Waste Control Specialists LLC (USA)

1:30 PM - 5:00 PM

Room 104 AB

Panel: Yucca Mountain - What's Next? Plus an **International Update on National Strategies for SNF Management and Disposal** 

Co-Chairs: Paul Dickman, US NRC;

Eric Knox, URS Corp. (USA) **Sponsor: Dorothy Davidson** 

Organizers: Leif G. Eriksson, Robert Edmonds

**Panel Reporter: Robert Edmonds** 

This timely and provocative panel will focus on and address both the perilous status of the US's only candidate SNF/HLW repository at the Yucca Mountain site and potential options for meeting the nation's continually increasing need for SNF and HLW disposal volume. This volume is projected to exceed the current statutory capacity of the Yucca Mountain repository in 2010.

The panel will be divided into four (4) topic areas with ample time for audience participation on each topic. Topics are: 1) Current status of the repository program including activities in Congress, the Administration, DOE-RW and NRC, 2) Implications for utilities and DOE defense waste sites of withdrawing the Yucca Mountain license application or de-funding the program, 3) Alternatives to a repository, including federal storage and recycling, and 4) International programs which offer lessons learned and alternative approaches.

Panelists: Enrique Biurrun, Head of the International Cooperation Department, DBE TECHNOLOGY GmbH (Germany); Carl Reinhold Brakenhielm, Vice Chair, Swedish National Council for Nuclear Waste; Edward Davis, Pegasus Group, LLC; George Dials, Executive VP, B&W Technical Services Group; Roy Eiguren, Consultant to former Idaho Governor Phil Batt; Darrell Lacy, Nye County, NV; Andrew Orrell, Sandia National Laboratories Director of Nuclear Energy Programs; Jean-Michel Bosgiraud, ANDRA (France); Frank Parker, Distinguished Professor of Environmental Engineering, Vanderbilt University; Mark Peters, Deputy Associate Laboratory Director, Argonne National Laboratory; John Parkyn, Chairman of the Board and CEO of Private Fuel Storage, LLC and **Dan Stout**, Manager Federal Programs, Licensing, Nuclear Generation Development and Construction, TVA.

### Session 15

1:30 PM - 5:00 PM

Room 101 B

Operating Experience and Progress in the Conditioning, Storage or Disposal of HLW and **SNF** 

**Co-Chairs: Keith Miller**, *National Nuclear Laboratory* (United Kingdom); Bernard Vigreux, French Nuclear Energy Society (France)

**Sponsor & Paper Reviewer: Bernard Vigreux** Organizers: Bernard Vigreux, Keith Miller

- 1:35 The Design and Manufacture of Equipment for the Automated Sampling of Process Streams for the Hanford Waste Treatment **Project** - 10267 Gordon Crawford, Nicholas Doyle, EnergySolutions (USA)
- 2:00 La Hague Continuous Improvement Program to go Beyond the Current High Level of **Equipment Availability of the Vitrification Facility: Operation Support with Specific Numerical Tools** - 10128 **Julien Lauzel**, Nicolas Huon, Fabrice Pereira Mendes, SGN (France); Eric Chauvin, Philippe Mahut, AREVA NC; Eric Tronche, Philippe Gruber, CEA Marcoule (France)
- 2:25 Functional Design and Operational Requirements for a Storage Facility for High-Level Waste Canisters, New York, USA - 10309 K.K. Gupta, Cynthia Dayton, Lettie Chilson, West Valley Environmental Services, LLC (USA);
- 2:50 Caustic Side Solvent Extraction at the **Savannah River Site: Operating Experience** and Lessons Learned - 10105 Steven Brown, Savannah River Remediation, LLC (USA)
- 3:20 Sludge Mass Reduction by Aluminum **Dissolution at the Savannah River Site** - 10428 Hasmukh Shah, Mark Keefer, Jeff Gillam,

Mark Bellis, US DOE (USA)

- Savannah River Remediation, LLC (USA)
- 3:45 Innovative Design of a Remote Maintenance **System For Pump Hotcell** - 10078 R.K. Gupta, S.D. Misra, Devendra Sandhanshive, S.R. Shendge, J.K. Saraswat, N.R. Kale, Bhabha Atomic Research Centre (India); B. Shreekumar, P. Sajith, N. Vijaykumar, Kalpakkam Reprocessing Plant (India)
- 4:10 Idaho Closure Project Integrated Waste **Treatment Project Construction and Start**up Status and Lessons Learned - 10433 Ray Geimer, CH2M-WG Idaho, LLC (USA)

1:30 PM - 5:00 PM

**Room 101 C** 

### **Application of Innovative D&D Technologies**

**Co-Chairs: Rick Demmer**, *Idaho National Laboratory* (USA); **Anja Graf**, *Projekt Kompakte Natriumgekühlte Kernreaktoranlage* (KNK) (Germany)

Sponsor & Paper Reviewer: Detlef Schmidt Organizers: Rick Demmer, Robert Woodard

- 1:35 Innovative Manned and Robotic Techniques that Reduce Dose and Increase Decontamination and Decommissioning Efficiency and Safety 10132 Charles Vallance, Rex Wamsher, Robert Walcheski, Underwater Engineering Services Inc.; John Bramblet, Newton Robotics (USA)
- 2:00 In-Situ Measurement of Low Enrichment Uranium Holdup in Process Gas Piping at K-25 - 10244 Brandon Rasmussen, Bechtel Jacobs Co. LLC; Martin Clapham, Pajarito Scientific Corp.; Steve Smith, Oak Ridge National Laboratory (USA)
- 2:25 Evaluation of Trenchless Technologies for Installation of Pipelines in Radioactive Environments - 10249 Sharon Robinson, Nick Sullivan, Bradley Patton, Robert Jubin; Kathy Bugbee, Oak Ridge National Laboratory (USA)
- 2:50 Control Testing of the United Kingdom's
  National Nuclear Laboratory's RadBall
  Technology at Savannah River National
  Laboratory 10080
  Steven Stanley, Chris Holmes, Robert Mills, Paul
  Knight, National Nuclear Laboratory (United
  Kingdom); Eduardo Farfan, Trevor Foley, John
  Gladden, Tim Jannik, Savannah River National
  Laboratory; Donald Mackenzie, US DOE; Mark
  Oldham, Corey Clift, Andy Thomas, Duke
  University Medical Center; John Adamovics,
  Heuris Pharma LLC (USA)
- 3:20 Utilizing Laser and Gamma Scanning
  Modeling Technology as a Characterization
  Tool in Decommissioning the First Primary
  Separation Plant at Sellafield 10081
  John MacGregor, Paul Mort, Steve Slater,
  Russell Mellor, Sellafield Ltd (United Kingdom)
- 3:45 The Potential of High Power Lasers in Nuclear Decommissioning - 10092 Paul Hilton, Colin Walters, TWI Ltd (UK) Study of an Innovative Nuclear Process
- 4:10 Based on Dense CO2: Application to
  Decontamination and Pu Recovery 10394
  Bruno Fournel, Ivan Stoychev, Stephane
  Sarrade, Jean-Christophe Ruiz, CEA Marcoule;
  Patrick Lacroix Desmazes, Tiphaine Ribaut,
  Institut Charles Gerhardt, ICG-IAM, Ecole
  Nationale Supérieure de Chimie de Montpellier
  (France)

### Session 17

1:30 PM - 5:00 PM

Room 105 C

ER Post Closure Challenges and Long Term Stewardship/Legacy Management

Co-Chairs: Raymond Plieness, US DOE; Mark Frei, Longenecker & Associates, Inc. (USA)

**Sponsor: Raymond Plieness** 

Organizers: Dale Bignell, Mark Frei Paper Reviewer: Dale Bignell

- 1:35 Office of Legacy Management: First Five Years of Managing the Department of Energy's Legacy Responsibilities - 10381 Tony Carter, US DOE; Judith Miller, S.M. Stoller Corporation (USA)
- 2:00 Beneficial Reuse of US DOE Legacy
  Management Sites and Renewable Energy
  Initiatives 10276
  Steve Schiesswohl, US DOE Office of Legacy
  Management; John Elmer, Michael Butherus,
  Cheri Bahrke, Carl Jacobson, S.M. Stoller
  Corporation (USA)
- 2:25 The US DOE Formerly Utilized Sites Remedial Action Program: Ensuring Protectiveness and Preserving Knowledge - 10351

**Christopher Clayton**, Vijendra Kothari, US DOE (USA); Michael Widdop, Joey Gillespie, S.M. Stoller Corporation (USA)

- 2:50 Natural and Enhanced Attenuation of Soil and Groundwater at the Monument Valley, Arizona, US DOE Legacy Waste Site 10281 William (Jody) Waugh, David Miller, Sarah Morris, Linda Sheader, S.M. Stoller Corporation; Ed Glenn, David Moore, Kenneth Carroll, University of Arizona; Levon Benally, Navajo AML Reclamation; Madeline Roanhorse, Navajo Nation; Richard Bush, US DOE (USA)
- 3:20 Groundwater Remediation at the Fernald Preserve, Cincinnati, Ohio: Overview and Status 10318

  William A. Hertel, Ken Broberg, S.M. Stoller Corporation; Jane Powell, US DOE (USA)
- 3:45 Quest for the Perfect Cap: The Prototype Hanford Barrier 15 Years Later - 10419 Andy Ward, Glendon Gee, Pacific Northwest National Laboratory; Steven Link, Washington State University (USA); Curtis Wittreich, Greg Berlin, CH2M Hill Plateau Remediation Company; Kevin Leary, US DOE (USA)
- 4:10 Fire Impacts on a Engineered Barrier's
  Performance: The Hanford Barrier One Year
  After a Controlled Burn 10472
  Kevin Leary, US DOE; Greg Berlin, CH2M Hill
  Plateau Remediation Company; Andy Ward,
  Pacific Northwest National Laboratory; Steven
  Link, Washington State University (USA)

4:35 Legacy Management's Weldon Spring and Fernald Preserve Sites Prairie Maintenance - 10360

Jane Powell, US DOE Office of Legacy Management; Harold Swiger, Yvonne Deyo, John Homer, Frank Johnston, S.M. Stoller Corp. (USA)

### Session 18

1:30 PM - 5:00 PM

Room 106 A

### **Waste Characterization - Instrumental Solutions**

Co-Chairs: Frazier Bronson, Canberra Industries Inc - AREVA Group; Stephen Croft, LANL (USA)
Sponsor, Organizer & Paper Reviewer: Frazier
Bronson

- 1:35 Design of a Facility for the Receipt
  Inspection and Characterization of LILW
  Using an Integrated System of NonDestructive Examination and NonDestructive Assay Techniques 10451
  Suk Nam Lim, KRMC; Jeong Sung-Yeop, Sung
  Woo E&T Co., LTD (Korea); Steve Halliwell, VJ
  Technologies, Inc (USA)
- 2:00 The Efficiency Calibration of Non-Destructive Gamma Assay Systems Using Semi-Analytical Mathematical Approaches - 10497
  - **D. Nakazawa**, Frazier Bronson, Stephen Croft, Robert McElroy, Wilhelm Mueller, Ram Venkataraman, Canberra Industries Inc - AREVA Group (USA)
- 2:25 Gamma-Ray Self Attenuation in Performance Demonstration Plan Sources - 10480

**Wilhelm Mueller**, Stephen Croft, Canberra Industries Inc - AREVA Group (USA)

- 2:50 The Special Properties of Massimetric Efficiency Calibrations as Compared to the Traditional Efficiency Calibration for D&D and ER Gamma Spectroscopy Measurements
   10021 Frazier Bronson, Canberra Industries Inc AREVA Group (USA)
- 3:20 Waste Assay at the Free Release Threshold Using a Box Monitor - 10007 Timothy Miller, AWE (United Kingdom)
- 3:45 Nuclear Calorimetry "Dispelling the Myths" 10443
  Sasha Philips, Stephen Croft, Canberra
  Industries Inc AREVA Group; Louise Evans, Los
  Alamos National Laboratory; Juliette Guerault,
  Setaram Instrumentation (France)
- 4:10 Performance Assessment of the Add-A-Source Matrix Correction Method Using the Super High Efficiency Neutron Coincidence Counting System (SuperHENC) 10527 Alan Simpson, T.A. Peterson, S.A. McElhaney, Pajarito Scientific Corporation (USA)

4:35 TRU/LLW Segregation Using Passive Neutron Coincidence Counting - 10072 Jamie Rackham, Mark Wilson, Jonathan Sharpe, VT Group (United Kingdom)

### Session 19

1:30 PM - 5:00 PM

Room 106 B

### **Communication of Technical Issues**

Co-Chairs: Elizabeth Bowers, US DOE; Bruce Kaiser, Bruker (USA) Sponsor & Paper Reviewer: Elizabeth Bowers Organizers: W.T. (Sonny) Goldston, Cherri DeFigh-Price

- 1:35 Post-Fire Revegetation at Hanford 10434 Richard Roos, Austin Johnson, Joe Caudill, Juan Rodriguez, Justin Wilde, Mission Support Alliance (USA)
- 2:00 An Integrated Biological Control System at Hanford - 10436 Justin Wilde, Richard Roos, Ray Giddings, Austin Johnson, Joe Caudill, Juan Rodriguez, Mission Support Alliance (USA)
- 2:25 Public & Regulatory Acceptance of Covers over Low-Level Waste Disposal Trenches to Ensure CERCLA Waste Acceptance during American Reinvestment and Recovery Act Implementation 10041

  W.T. (Sonny) Goldston, Savannah River Nuclear Solutions (USA)
- 2:50 Application of Natural Attenuation Processes to Remediate Metals and Radionuclides in Groundwater: Regulatory Guidance and Stakeholder Perspective -10113

**Dibakar (Dib) Goswami**, Washington State Dept. of Ecology; Carl Spreng, Colorado Dept. of Public Health and Environment (USA)

- 3:20 Public Perceptions of Natural Resource
  Damage Assessment and the Resources that
  Require Restoration 10054
  Joanna Burger, Rutgers University; Michael
  Gochfeld, CRESP (USA)
- 3:45 Role of State Legislatures in Nuclear Waste Management - 10284 Melissa Savage, Emily Templin, National Conference of State Legislatures (USA)
- 4:10 US DOE'S Performance Assessment Scoping Process - 10445 Martin Letourneau, US DOE (USA)
- 4:35 An Approach to Knowledge Management for Radioactive Waste - 10114 Olga Batyukhnova, Yury Puzanov, Irina Semenova, Arthur Arustamov, SIA RADON (Russia); Michael Ojovan, University of Sheffield (United Kingdom)

1:30 PM - 3:15 PM

Room 103 AB

Panel: New Directions in Safety & Health from a **Global/Enterprise Perspective** 

Co-Chairs: Judith Connell, Joseph Yanek, Fluor

Government Group (USA)

**Sponsor & Panel Reporter: Judith Connell Organizers: Judith Connell, Joseph Yanek** 

This Session is the first of a two-part panel. This Session will focus on trends in safety, health and sustainability from a global perspective. A questionand-answer period will follow the presentations and panel discussions.

Panelists: Frank R. Russo, SR ESHO Advisor to NNSA Administrator, US DOE HQ NNSA; Chris Evans, Executive Director HSE, Fluor Corporation, Camberley (UK); Dave Jackson, Chair, Voluntary Protection Program Participants Association; and Brent Rankin, EVP/COO, Idaho Cleanup Project.

### Session 21

3:15 PM - 5:00 PM

Room 103 AB

Panel: The Role of Executive Leadership in **Developing and Maintaining a Strong Safety Culture** 

Co-Chairs: William Murphie, US DOE; Joseph Yanek, Fluor Government Group (USA) Sponsor, Organizer & Panel Reporter: Judith Connell

This Session is the second part of the discussion on safety. Participants on this panel will focus on the role of executive leadership in achieving a strong safety culture. A question-and-answer period will follow the presentations and panel discussions.

Panelists: Garry Flowers, President & CEO, Savannah River Nuclear Solutions, LLC; Greg Meyer, President & General Manager, B&W Pantex; Roy **Schepens**, VP, Infrastructure and Technology Group, Parsons; Ray Skwarek, Director, Safety, Health & Quality Assurance, Washington Closure Hanford; and David Moody, Manager, Waste Isolation Plant, Carlsbad Field Office, US DOE.

### Session 22

1:30 PM - 5:00 PM

Room 106 C

**Worldwide Waste Management Regulatory and Oversight Crosscutting Programs - An Update** 

Co-Chairs: Malgorzata Sneve, Norwegian Radiation Protection Authority (Norway); Ray Clark, US EPA

**Sponsor: Ray Clark** 

Organizers: Christopher Timm, Gérald Ouzounian

Paper Reviewer: Christopher Timm

1:35 US DOE's New Complex-Wide Review and Update to US DOE Order 435.1, Radioactive Waste Management - 10412 Susan Krenzien, Navarro Research and Engineering; Martin Letourneau, US DOE (USA)

- 2:00 Joint Convention Lessons Learned and **Avoidance of Future Legacies** - 10370 Lisa Phillips, US DOE; Giorgio Gnugnoli, US NRC; Daniel Schultheisz, US EPA (USA)
- 2:25 Baseline Review of United Kingdom Nuclear Infrastructure - 10239 Juliet Long, Joe McHugh, David Bennett, Environment Agency; Betty Ng, Anthony Webb, Peter Lutwyche, Michael Middleton, Jacobs; Alastair Macdonald, Jacobs Engineering (UK)
- 2:50 Progress in Norway's Bi-Lateral Cooperation **Program on Regulatory Supervision of Legacy Site Management: The Role of International Recommendations** - 10191 Malgorzata Sneve, Norwegian Radiation Protection Authority (Norway); Mikhail Kiselev, Federal Medical-Biology Agency of Russia; and Natalia Shandala, Burnasyan Federal Medical Biophysical Centre (Russia)
- 3:20 Radioactive Waste Disposal How Safe Should It Be? - 10526 Christopher Timm, PECOS Management Services, Inc.; Bruce Thomson, University of New Mexico (USA)
- 3:45 Some Unlearned Lessons in Radioactive Waste Disposal - 10517 Robert Neill, New Mexico EEG (USA)
- 4:10 An International Effort to Develop Guidance on the Comparison of NQA-1-2008/NQA-1a-2009, and International Atomic Energy Agency Safety Standard GS-R-3 - 10008 Gustave Danielson, US DOE (USA)
- 4:35 Nationwide Environment-Oriented Program of Radioactive Waste Management in **Ukraine** - 10398

Volodymyr Kholosha, Liubov Zinkevich, Mykola Proskura, Ministry of Emergency of Ukraine; Viacheslav Shestopalov, National Academy of Sciences; Emlen Sobotovich, Institute of Geochemistry of the Environment of the National Academy of Science; Volodymyr Tokarevsky, Ukrainian State Corporation Radon (Ukraine)

### **Poster Session 23**

1:30 PM - 5:00 PM

**1st Floor Fover** 

### **HLW/SNF/TRU Posters A-D**

### <u>Topic A: Monitoring, Processing, and Cleaning of</u> HLW Tanks and Equipment

Co-Chairs: Anthony Banford, National Nuclear Laboratory (United Kingdom); Terri Fellinger,

Savannah River Remediation (USA)
Sponsor: Terri Fellinger

Paper Reviewer: Harry Babad

A1. A Modern Interpretation of the Barney Diagram for Aluminum Solubility in Tank Waste - 10075

**Jacob Reynolds**, Washington River Protection Solutions (USA); Daniel Reynolds, AEM Consulting (USA)

- A2. Mineralization of Radioactive Wastes by Fluidized Bed Steam Reforming (FBSR): Radionuclide Incorporation, Monolith Formation, and Durability Testing 10467 Carol Jantzen, Charles Crawford, Savannah River National Laboratory (USA)
- A3. 2009 Pilot Scale Fluidized Bed Steam Reforming Testing Using the THOR® (THermal Organic Reduction) Process: Analytical Results for Tank 48H Organic Destruction 10408

Michael Williams, Carol Jantzen, Gene Daniel, Paul Burket, Charles Crawford, Savannah River National Laboratory; Celia Aponte, Savannah River Remediation, LLC; Caroline Johnson, University of South Carolina (USA)

- A4. A Unique Design Approach for Extending Service Life of a Failed Thermo-Siphon Evaporator - 10211 R.K. Gupta, A.K. Singh, S.P. Patil, D.B. Mehta, S.M. Wavare, S.K. Mourya, S.D. Misra, Bhabha Atomic Research Centre (India)
- A5. Gas Retention and Release Experiments with Low Yield Stress Fluids 10137 Romani Patel, Georgio Tachiev, Vishwani Sharma, Nitin Yadav, Dwayne McDaniel, David Roelant, Florida International University (USA)
- A6. Multiple-Relaxation-Time Lattice Boltzmann Method for Multiphase Flows with High Density and Viscosity Ratios 10135 Seckin Gokaltun, Dwayne McDaniel, Florida International University (USA)
- A7. Remote Monitors for High Level Waste (HLW) - 10098 Jose Varona, Amer Awwad, Dwayne McDaniel, David Roelant, Jairo Crespo, Reny Rosales, Florida International University (USA)
- A8. Evaluation and Development of Innovative High-Level Waste Pipeline Unplugging Technologies 10136

- **Dwayne McDaniel**, Seckin Gokaltun, Tomas Pribanic, Jose Varona, Amer Awwad, David Roelant, Florida International University (USA)
- A9. Scaled Testing to Evaluate Pulse Jet Mixer Performance in Waste Treatment Plant Mixing Vessels 10487

  James Fort, Perry Meyer, Judith Bamberger, Carl W. Enderlin, Paul A. Scott, Michael J. Minette, Phillip Gauglitz, Pacific Northwest National Laboratory (USA)
- A10. Enhanced Chemical Cleaning: Effectiveness of the UV Lamp to Decompose Oxalates 10502

  Edward Ketusky, Thomas Huff, Christie
  Sudduth Savannah River Remediation: John

Sudduth, Savannah River Remediation; John Remark, Dennis Jones, AREVA NP Inc.; Mika Sillanpaa, University of Eastern Finland (Finland)

A11. System Planning with the Hanford Tank Waste Operations Simulator - 10236 Tom Crawford, Paul Certa, Washington River Protection Solutions; Michele Wells, AEM Consulting (USA)

## <u>Topic B: Update and Technology Improvements</u> for HLW Vitrification Processes

**Co-Chairs: Keith Miller**, *National Nuclear Laboratory* (United Kingdom); **Christian Ladirat**, CEA Marcoule (France)

Sponsor: Christian Ladirat Paper Reviewer: Keith Miller

- B1. Design and Construction of Integrated
  System of Bench-Scale High-Temperature
  Waste Melting/Vitrification Units at SIA
  Radon 10141
  Sergey Stefanovsky, Sergey Dmitriev,
  Alexander Ptashkin, Igor Knyazev, Oleg Knyazev,
  Maria Zen'kovskaya, SIA Radon (Russia)
- B2. Vitrification in a Cold Crucible Melter of HLLW Surrogate Solution: Behavior of Volatile Elements from Furnace to Off Gas Treatment 10020
  Eric Tronche, J. Lacombe, Alain Ledoux, Roger Boen, Christian Ladirat, CEA Marcoule (France)
- B3. Cold Crucible Vitrification and Characterization of Vitrified Savannah River Sludge Batch 4 Waste Surrogate - 10139 Sergey Stefanovsky, Vladimir Lebedev, Dmitriy Suntsov, Mikhail Polkanov, SIA Radon (Russia); James Marra, Savannah River National Laboratory (USA)
- B4. Cold Crucible Inductive Melter (CCIM)
  Technology for Treatment of LILW and HLW
   10209

Vladimir Lebedev, Dmitriy Suntsov, Sergey Shvetsov, **Sergey Stefanovsky**, Alexander Kobelev, Fedor Lifanov, Sergey Dmitriev, SIA Radon (Russia)

- B5. 3D Thermal, Hydrodynamic & Magnetic Modeling of Elaboration of Glass by **Induction in Cold Crucible** - 10051 Emilien Sauvage, Patrice Brun, CEA: Armand Bonnetier, CEA Valrho; Christian Ladirat, J. Lacombe, CEA Marcoule; Eric Chauvin, AREVA NC (France)
- **B6.** EM-21 Higher Waste Loading Glasses for **Enhanced DOE High-Level Waste Melter** Throughput Studies - 10194 Fabienne Raszewski, Thomas Edwards, David Peeler, Savannah River National Laboratory (USA)
- **B7.** Estimating Melt Rate for Savannah River Site HLW Simulants - 10304 **Albert Aloy**, Alexander Trofimenko, Valery Belov, Khlopin Radium Institute (Russia); Kurt Gerdes, US DOE; James Marra, Kevin Fox, David Peeler, Savannah River National Laboratory (USA)
- **B8.** Sellafield Thermal Treatment Trials Using **Advanced Joule Heated Ceramic Melter** Technology - 10110 Keith Matlack, Wing K. Kot, Hao Gan, Ian Pegg, Catholic University of America; Glenn Diener, Bradley Bowan, EnergySolutions (USA)
- B9. Mitigation of Yellow Phase Formation at the **Rokkasho HLW Vitrification Facility** - 10107 Ian Pegg, Hao Gan, Keith Matlack, Catholic University of America; Innocent Joseph, Bradley Bowan, EnergySolutions (USA); Yoshihiro Endo, IHI Corporation; Akikazu Ohashi, Toshiki Fukui, Japan Nuclear Fuel Limited (Japan)
- **B10.** Solubility of Sulfate and Chloride Ions in **Borosilicate Melts at Vitrification of Intermediate-Level Radioactive Wastes** - 10348 Natalia Ilyukhina, Irene Ponomaryova, Tatiana Lashchenova, **Sergey Stefanovsky**, SIA Radon (Russia)
- **B11.** On Spinodal Decomposition of E-Beam **Irradiated Borosilicate Glasses** - 10202 Michael Ojovan, Guenter Möbus, University of Sheffield (United Kingdom); Guang Yang, Universität Erlangen-Nürnberg (Germany)

# Topic C: Development of Technologies for the Processing of SNF/HLW and Management of TRU **Waste**

**Co-Chairs: Harry Harmon**, Senior Consultant (USA);

Roger Nelson, US DOE (USA) **Sponsor: Harry Harmon** 

Paper Reviewer: Roger Nelson

C1. Selective Separation and Recovery of Mo(VI) by Hybrid Microcapsules Containing Organic Extractants - 10179

Kaoru Ikeda, Yan Wu, Hitoshi Mimura, Yuichi Niibori, Tohoku University; Yoshito Wakui,

- National Institute of Advanced Industrial Science and Technology Tohoku: Masahiko Osaka, Shinichi Koyama, Takashi Ohnishi, Japan Atomic Energy Agency (Japan)
- C2. Control of Volatile Radionuclides from the **Dissolution of Used Nuclear Fuel** - 10224 Robert Jubin, Dan Ramey, Steve Owens, E. Steve Meyers, Porter Bailey, Joseph Giaquinto, Barry Spencer, Oak Ridge National Laboratory (USA)
- C3. Dry Spent Nuclear Fuel Storage and its Role in Environmental Damages Mitigation in **Brazil** - 10302

Luiz Sergio Romanato, Brazilian Naval Technology Center; Barbara Maria Rzyski, Energetic and Nuclear Research Institute (Brazil)

C4. Full-Scale Tests of Technology for TRU-**Containing MLW and LLW Decontamination** - 10026

Vladimir Gelis, Vitaly Milyutin, Evgeny Kozlitin, Frumkin Institute of Physical Chemistry and Electrochemistry RAS; Arthur Arustamov, Dmitry Adamovich, Sergey Dmitriev, SIA Radon (Russia)

C5. WIPP Regulatory Compliance – Keeping the **Gate Open** - 10435 Susan McCauslin, Russell Patterson, US DOE: Steve Kouba, URS Corporation (USA)

- **C6.** Operational Experience of Chlorinated **Compounds Waste Incineration System for Plutonium Contaminated Wastes** - 10061 Yuichi Shibata, Izumi Iimura, Kazuya Usui, Japan Atomic Energy Agency (Japan)
- C7. Cementation Mixing Gloveboxes for **Radioactive Wastes at the Waste** Solidification Building at DOE Savannah River Site - 10237 **Gordon Crawford**, EnergySolutions (USA)
- C8. Neutron Self Multiplication Effects in PDP **Items in the Context of Coincidence Counting** - 10496

Stephen Croft, Sean Stanfield, Nabil Menaa, Canberra Industries Inc - AREVA Group (USA); Patrick Chard, Canberra Industries Inc - AREVA Group (United Kingdom)

# **Topic D: Technology and Studies Supporting the Disposal for HLW and SNF**

Co-Chairs: Zara Banfield, National Nuclear Laboratory (United Kingdom); Roger Nelson, US DOE **Sponsor: Zara Banfield** Paper Reviewer: Roger Nelson

D1. Sorption Behavior of Eu (III) into Calcium Silicate Hydrate (CSH) Gel with Relatively Low Ca/Si Ratio <1.0 - 10096 Masayuki Narita, Yuichi Niibori, Hitoshi Mimura, Akira Kirishima, Tohoku University (Japan); Joonhong Ahn, University of California, Berkeley (USA)

- D2. Uncertainty and Sensitivity Analysis for Long-Term Performance of Sand-Bentonite Buffer Material - 10077 Seiji Takeda, Hideo Kimura, Japan Atomic Energy Agency (Japan)
- D3. Dynamic Behavior of Silicic Acid in the Co-Presence of the Solid Phase and Ca Ions -10120 Naoyuki Tamura, Hitoshi Mimura, Yuichi Niibori, Tohoku University; Kazuki Iijima, Japan Atomic Energy Agency (Japan)
- D4. Measurement of Stable Iodine in Crops and Soils as an Analogue of Iodine-129 - 10347 Shigeo Uchida, Keiko Tagami, National Institute of Radiological Sciences (Japan)
- D5. Two-Zone Sub-Critical Reactor Driven by a High-Intensity Neutron Generator as a Research Facility for the Nuclear Waste Transmutation 10124

  Volodymyr Gulik, Volodymyr Pavlovych,
  Institute for Nuclear Research of the National Academy of Science of Ukraine; Volodymyr Babenko, Kyiv Bogolyubov Institute for Theoretical Physics (Ukraine)
- D6. Non-destructive Determination of Plutonium Mass in Spent Fuel: Preliminary Modeling Results Using the Passive Neutron Albedo Reactivity Technique 10413

  Louise Evans, Stephen Tobin, Howard Menlove, M.A. Schear, S.Y. Lee, M.T. Swinhoe, Los Alamos National Laboratory (USA)
- D7. Impermeable Graphite: A New Development for Embedding Radioactive Waste and an Alternative Option of Managing Irradiated Graphite 10027

  Johannes Fachinger, Karl-Heinz Grosse, Furnaces Nuclear Applications Grenoble; Richard Seemann, M. Hrovat, ALD Vacuum Technologies GmbH (Germany)
- D8. Estimation of Carbon-14 Transfer from Agricultural Soils to Crops Using Stable Carbon Isotope Ratios - 10346 Keiko Tagami, Shigeo Uchida, National Institute of Radiological Sciences (Japan)

# Poster Session 24

1:30 PM - 5:00 PM

**Exhibit Hall** 

Student Poster Competition: The Next Generation, Industry Leaders of Tomorrow

**Co-Chairs: Robert Berry**, Foxfire Scientific (United Kingdom); **Leonel Lagos**, Florida International

University (USA)

**Sponsor: Robert Berry** 

S1. The Effect of Aqueous Bicarbonate in the Dissolution Rate of Autunite at US DOE's Hanford Site Subsurface Soil - 10546

- Melina Idarraga (DOE Fellow), Florida International University (USA)
- S2. Wiped Film Evaporator Pilot Scale
  Experimental Design to Reduce Volume of
  Waste at Hanford's Farm Tank 10547
  Duriem Calderin (DOE Fellow), Florida
  International University; Robert Wilson,
  Columbia Energy & Environmental Services, Inc.
  (USA)
- S3. Compendium of Technology Experts and University/Industry Research Programs Applicable to D&D 10548
  Ramon A. Colon (DOE Fellow), Florida International University (USA)
- S4. Mercury Remediation using Dow's Experimental XUS-43604.00 Ion-Exchange Resin at Oak Ridge National Laboratory 10549

Charles Castello (DOE Fellow), Florida International University; Paul Taylor, Oak Ridge National Laboratory (USA)

- S5. Phosphate and Calcium Precipitation in Aqueous Environment: Implication on Uranium Remediation at US DOE-Hanford Site 10550
  Nadia Lima (DOE Fellow), Prabhakar Pant, Leonel Lagos, Florida International University (USA)
- S6. Temperature Analysis of Mass Grout Pours for Single Shell Tank Closure at Hanford 10551

**Raul Dominguez** (DOE Fellow), Florida International University (USA)

- S7. Computational Analysis Validation of Power Fluidics Mixing Technology to Enhance Chemical Cleaning Operations in High Level Waste Tanks at Savannah River Site 10552
  - **Edgard Espinosa** (DOE Fellow), Florida International University (USA)
- S8. Development of Characterization Tools for Contaminated Nuclear Stacks 10553
  William Mendez (DOE Fellow), Florida
  International University (USA)
- S9. The Search for Knowledge Meeting US
  DOE-EM's High Priority D&D Needs
   10554
  Leydi Velez (DOE Fellow), Florida International
  University (USA)
- S10. Effect of pH and Temperature on the Carbonate-Promoted Dissolution of Synthetic Sodium Meta-Autunite 10555 Ravi Krishna Prasanth Gudavalli, Florida International University (USA)
- S11. Mercury Interactions with Sediments at Oak Ridge's East Fork Poplar Creek 10556 Elsa Cabrejo (DOE Fellow), Florida International University (USA)

- S12. Characterizing Inorganic Scintillating
  Detectors for Determining Potential
  Radiation Exposure 10358
  Ronald Unz, Donna Rogers, Charles Waggoner,
  Mississippi State University (USA)
- S13. Evaluation of Variables Affecting Spatial Resolution for Mobilized Gamma Detection 10355
  Charles Vaughan, Jay McCown, Donna Rogers, Charles Waggoner, Mississippi State University (USA)
- S14. Developing New Photo Catalysts for Complete Destroying Hazardous Contaminants in Polluted Waters Using Sunlight 10576
  Sarif Masud, Mahsa Hosseini, Geoffrey B. Saupe, Maryam Zarei, University of Texas at El Paso (USA)
- S15. Chemical Footprint of Surface-Runoff Infiltration in the Vicinity of Yucca Mountain- 10290 Omar Al-Qudah, University of Texas at El Paso (USA)
- S16. Bayesian Geostatistical Inversion
  Framework for Characterizing ThreeDimensional Hydraulic Conductivity Field:
  An Application to the Hanford 300 Area
   10298
  Haruko Murakami, Yoram Rubin, Xingyuan
  Chen, Melanie Hahn, University of California,
  Berkeley (USA); Mark Rockhold, Vince Vermeul,
  Pacific Northwest National Laboratory (USA)
- **S17.** The Optimization of the Sub-critical Core for the Nuclear Waste Transmutation 10585 Volodymyr Gulik, Kiev Institute for Nuclear Research (Ukraine)
- S18. Removal of Uranium (VI) under Anaerobic Conditions using an Indigenous Mine
   Consortium from Limpopo, South Africa
   10588
   Simphiwe Chabalala, Evans Chirwa, University
- of Pretoria (Republic of South Africa)

  S19. Power Fluidics: Improving the Efficiency of

**Enhanced Chemical Cleaning at the** 

Savannah River Site - 10589

**Lee Brady** (DOE Fellow), Florida International University (USA)

- S20. Iron-Polyphosphate Precipitation System:
  Possible Impact on Polyphosphate
  Remediation Technology 10590
  Reinier Hernandez (DOE Fellow), Florida
  International University (USA)
- S21. Separation of Metal and Metal Oxides using Ethyl Acetate and Bromine 10591
  Alexander Henao (DOE Fellow), Florida International University (USA)
- **S22.** In-Tank Solids Monitor 10592 Henry Diaz (DOE Fellow), Florida International University (USA)

- S23. Fuel Cycle Design and Analysis of SABR:
  Subcritical Advanced Burner Reactor
   10594
  Christopher Sommer, Weston Stacey, Bojan
  Petrovic, Georgia Institute of Technology (USA)
- S24. Removal of Hg (II) from Aqueous Solutions of LIX26 and LIX84 Cationic Exchangers
   10597
  Sergiu Fiodorov (DOE Fellow), Florida
  International University (USA)
- S25. Selective Uptake of Palladium by Hybrid
  Microcapsules 10598
  Takenori Kuzumaki, Tohoku University (Japan)
- S26. A Study of Uranium Biosorption by DOE-Hanford Site Soil Isolates: Effect of pH and Carbonate - 10599 Denny Carvajal (DOE Fellow), Florida International University (USA)
- S27. Development of the Self-Propagating High-Temperature Synthesis Process for Nuclear Fuel Fabrication - 10600 Victoria Olsen, Colorado School of Mines (USA)
- S28. Using SHS to Produce Nitride
  Transmutation Fuels Containing Minor
  Actinides 10601
  Zoe Kula-Kreidler, Colorado School of Mines
  (USA)
- S29. Development of a Modified TALSPEAK
  (Trivalent Actinide-Lanthanide Separation
  by Phosphorus Reagent Extraction from
  Aqueous Komplexes) Process to Separate
  Americium from Curium in Spent Nuclear
  Fuel 10602
  Christina Leggett, University of California,
  Berkeley; Renato Chiarizia, Mark Jensen,
  Argonne National Laboratory (USA)
- S30. Preconcentration Process for Mass Spectrometry with Applications to Nuclear Forensics, Bio-Assay, and Site Remediation 10605

James Miller, Texas A& M University (USA)

# March 9, Tuesday AM

Session 25

8:30 AM - 12:00 PM

**Room 102 B** 

Panel: Emerging Issues with US DOE Prime Contractors

**Co-Chairs: Judith Connell, Pete Knollmeyer**, Fluor Government Group (USA)

Sponsor & Panel Reporter: Judith Connell Organizers: Judith Connell, Pete Knollmeyer

This panel will feature senior executives from large and small US DOE sites addressing issues in the DOE's waste and environmental cleanup program. Multiple, timely topics concerning critical or emerging issues or

# **Tuesday AM**

challenges within the prime contractor community will be the focus of the discussion.

Such potential topics include integrating ARRA activities/funding with Site mission/base funding. Questions will be posed to the panelists for response followed by discussion.

Panelists: Bill Franz, Project Manager, LATA/Parallax Portsmouth, LLC; John Lehew, President, CH2M HILL Plateau Remediation Company; Garry Flowers, President & CEO, Savannah River Nuclear Solutions, LLC; Scott Sax, Washington River Protection Solutions; Jeff Mousseau, President & General Manager, Bechtel BWXT Idaho; Ryan Dodd, Deputy Project Manager, Washington Closure Hanford; Greg Meyer, President & General Manager, B&W PANTEX, and Dennis Ferrigno, Site Manager, Paducah Remediation Services, LLC. (USA)

#### Session 26

8:30 AM - 12:00 PM

**Room 106 C** 

**US DOE Small Sites - Cleanup and Waste Management Update** 

Co-Chairs: Jack Craig, US DOE; Erich Evered, TerranearPMC (USA) Sponsor & Paper Reviewer: Erich Evered Organizers: Erich Evered, Jack Craig

- 8:35 Accelerated Remediation and Nuclear Facility Demolition at the Separations Process Research Unit 10521

  John Rampe, US DOE (USA)
- 9:00 Moab Uranium Mill Tailings Remedial Action (UMTRA) Project Infrastructure Construction Challenges and Lessons Learned 10471

  Donald Metzler, US DOE (USA)
- 9:25 West Valley Demonstration Project Update
   10396
  Craig Rieman, US DOE (USA)
- 9:50 Brookhaven National Laboratory Environmental Clean-up and Facility D&D Completion Acceleration - 10537 Thomas Vero; John Sattler, US DOE (USA)
- 10:20 The Ohio Field Office Closure Experience
   10380
  Johnny Reising, US DOE (USA)
- 10:45 Progress in EM's Footprint Reduction for the Oakland Projects Office's Projects - 10560

Richard Schassburger, US DOE (USA)

11:10 The Legacy of Nuclear Research Waste Disposition Initiatives at Argonne National Laboratory, Argonne, IL - 10563 Susan Lorenz, Cynthia Rock, Argonne National Laboratory (USA)

# 11:35 Oak Ridge National Laboratory Central Campus Cleanup - 10574

**Dirk Van Hoesen**, UT-Battelle; JT Howell, James D. Kopotic, David Adler, Lee McGetrick, US DOE; L.C.M. Roddye, Ron Canon, Ken Schneider, T.B. Conley, Oak Ridge National Laboratory (USA)

#### Session 27

8:30 AM - 12:00 PM

Room 106 B

The Role of the US DOE Office of Engineering and Technology in Reducing Risk in the HLW Management

Co-Chairs: Steven Schneider, Kurt Gerdes, US

DOE (USA)

**Sponsor: Kurt Gerdes** 

Organizers: Kurt Gerdes, John Shultz

**Paper Reviewer: John Shultz** 

1. Technology Development to Reduce Risks in EM - Expanded Program for FY10 and Beyond

**Yvette Collazo**, John Shultz, Kurt Gerdes, US DOE; Jeff Griffin, Daniel McCabe, Savannah River National Laboratory (USA)

2. US DOE Office of Environmental Management Office of Waste Processing Fiscal Year 2010 Program Plan for Technology Development - 10508

**Steven Schneider**, Kurt Gerdes, US DOE; Andrew Fellinger, Jeff Griffin, Savannah River National Laboratory (USA)

3. Fiscal Year 2010 Program of the US DOE Office of Groundwater and Soil Remediation - 10587

**Skip Chamberlain**, Karen Skubal, US DOE; Dawn Wellman, Pacific Northwest National Laboratory

- 4. Key Functions and Activities for the Office of Nuclear Materials Disposition Within the Environmental Management Program 10586 Edgardo DeLeon, Hitesh Nigam, US DOE (USA)
- 5. Office of Deactivation and Decommissioning and Facility Engineering 2010 Prioritized Technology Initiatives to Improve D&D Operations 10246

  Yvette Collazo, Andrew Szilagyi, Paula Kirk,

Yvette Collazo, **Andrew Szilagyi**, Paula Kirk Shirley Frush, US DOE (USA)

- 6. US DOE-EM Technical Strategies for Transforming the Tank Waste System - 10156 Steven Schneider, US DOE; Phil McGinnis, Oak Ridge National Laboratory; Michael Cercy, Sheryl Ross Bush, Savannah River National Lab. (USA)
- 7. The External Technical Review Process A
  Discussion of Process Guidelines and Recent
  Review Results 10155
  John Shultz, Steven Schneider, Monica Regalbuto,
  US DOE (USA)

8. The US DOE Office of EM Management
International Cooperative Program: Overview
of Technical Tasks and Results - 10084
James Marra, Kevin Fox, Tim Jannik, Eduardo
Farfan, Savannah River National Laboratory; DongSang Kim, Kurt Gerdes, Ana Han, US DOE; John
Vienna, Pacific Northwest National Laboratory; Jay
Roach, Idaho National Laboratory (USA); Albert
Aloy, Khlopin Radium Institute; Sergey
Stefanovsky, SIA Radon (Russia); Dmitry Lopukh,
Electrotechnical University; Mikhail Bondarkov,
International Radioecology Laboratory (Ukraine)

#### Session 28

8:30 AM - 10:15 AM

Room 105 AB

Panel: US Progress, Challenges and Future of American Recovery & Reinvestment Act (ARRA) D&D Projects

Co-Chairs: Albert Freitag, Burns and Roe Enterprises, Inc. (USA); J. Rick Dearholt, CDM (USA) Sponsor & Organizer Albert Freitag Panel Reporter: J. Rick Dearholt

This panel discussion will focus on the progress, current challenges and production associated with ARRA funded projects in D&D.

Panelists: Reinhard Kneer, DOE Site Manager – Paducah; and Ken Schneider, Program Manager, Environmental Program Management Office, Oak Ridge National Laboratory (USA).

# Session 29

10:15 AM - 12:00 PM

Room 105 AB

**D&D** of Nuclear Facilities (Non-Power Generating Facilities and Small Nuclear Facilities)

**Co-Chairs: Fred Sheil**, *Sellafield Ltd (United Kingdom)*; **J. Rick Dearholt**, *CDM (USA)* 

**Sponsor: Fred Sheil** 

Organizers: Julia Tripp, Jas Devgun Paper Reviewer: J. Rick Dearholt

- 10:20 Offsite Contamination in Plum Brook, from Discovery and Characterization to Demonstration of Regulatory Compliance
   10045 Keith Peecook, NASA-Plum Brook Station (USA)
- 10:45 Research Reactor FRJ-1 (MERLIN)
  Disappears Almost Without Trace: Review
  of the Ups and Downs of Reactor
  Dismantling 10453
  Burkhard Stahn, Rudolf Printz, Carsten Zehbe,
  Karel Matela, Forschungszentrum Jülich GmbH
  (Germany)

11:10 Lessons Learned from Shut-Down to
Decommissioning Plan at the Army Pulse
Radiation Facility - 10293
Hans Honerlah, US ACE; Gurvis Davis, US
Army Developmental Test Command (USA)

11:35 Cleanup of Plutonium Sulfate Spill at NIST Laboratory in Boulder, Colorado, US - 10366 Greg McGinnis, Robin Shult, Paul Ely,

EnergySolutions (USA)

#### Session 30

8:30 AM - 12:00 PM

**Room 106 A** 

Status and Plans at the US DOE Waste Isolation Pilot Plant (WIPP)

Co-Chairs: Roger Nelson, US DOE (USA); Nancy Zacha, Radwaste Solutions Magazine (USA) Sponsor & Paper Reviewer: Roger Nelson Organizers: Roger Nelson, Chuan-Fu Wu

- 8:35 WIPP Status and Plans 2010 10363 Roger Nelson, Dave Moody, US DOE (USA)
- 9:00 The Role of the Technical Assistance Contractor at the Waste Isolation Pilot Plant - 10596 Randal Steger, Dick Blauvelt, Wayne Ledford, Steven Calvert, Navarro Research and Engineering, Inc. (USA)
- 9:25 Mobile Loading Transuranic Waste at Small Quantity Sites in the DOE Complex - 10523 Mitch Carter, Jerri McTaggart, Bryan Howard, Wade Weyerman, Los Alamos National Laboratory (USA)
- 9:50 Transportation Incidents and Lessons Learned From Nearly 20 Million Miles of WIPP Shipments - 10053 Roger Nelson, William Mackie, US DOE (USA)
- 10:20 Update on WIPP Recertification 2009 10221
  Steve Kouba, Art Chavez, URS Corporation;
  Russell Patterson, US DOE; Michael Gross, MG Enterprises (USA)
- 10:45 Planned EPA Regulatory Changes at the WIPP: 2010 and Beyond 10595
  Steve Kouba, URS Corporation; Russell Patterson, US DOE; Michael Gross, MG Enterprises (USA)
- 11:10 WIPP Hazardous Waste Facility Permit Renewal Application Update - 10206 William Most, Robert Kehrman, URS Corporation (USA)
- 11:35 WIPP Hazardous Waste Facility Permit
  2010 Update Ten Years Old and Counting
   10210
  Robert Kehrman, Dave Streng, Rick Chavez,
  William Most, URS Corporation (USA)

8:30 AM - 12:00 PM

**Room 101 B** 

Operating Experience in the Treatment and Storage of LLW, ILW, and TRU

**Co-Chairs: Sammy Jones**, *IMPACT Services, Inc.*; **Linda Beach**, *Waste Control Specialists LLC (USA)* 

**Sponsor: Linda Beach** 

Organizers: Linda Beach, Paul Larsen

**Paper Reviewer: Rod Grebb** 

- 8:35 Stabilization of SGHWR Sludge and Thorium Metal in a Commercial Plant in the United Kingdom 10101

  Rowland Cornell, Madoc Hagan, Nuvia Limited (United Kingdom)
- 9:00 Conditioning of Pu-Containing Radioactive Waste (LLW) Generated in the Hotlab of the PSI 10199

  Joachim Mueth, Paul Scherrer Institute (Switzerland)
- 9:25 Managing Change in the Supply of Cement Powders for Radioactive Waste Encapsulation Twenty Years of Operational Experience 10122 Mike Angus, Hugh Godfrey, Martin Hayes, National Nuclear Laboratory; Steve Foster, Sellafield Ltd (United Kingdom)
- 9:50 Cost-Benefit Analysis for the Regulatory Clearance of Soil and Concrete Wastes at KAERI - 10316 Young-Yong Ji, Il-Sik Kang, T. K. Kim, Woo-Seog Ryu, Dae-Seok Hong, Korea Atomic Energy Research Institute (Korea)
- 10:20 Demonstration Test of Cavern-Type
  Disposal Facility and Its Progress 10116
  Takahiro Nakajima, Yoshihiro Akiyama, Kenji
  Terada, Masahiro Negi, Radioactive Waste
  Management Funding and Research Center
  (Japan)
- 10:45 Shielded Modular Above Ground Storage Buildings for Low-Level Radioactive Waste - 10142

**Param Bhat**, Angela Lee, MMM Group Ltd.; Peter McMillan, MAA Architects; Lorrie Gauthier, Atomic Energy Of Canada Limited (Canada)

- 11:10 Macroencapsulation of Mixed Low-Level Radioactive Waste at the Nevada Test Site - Current Capabilities - 10268 John Wrapp, NSTec; Frank DiSanza, US DOE Nevada Test Site Office (USA)
- 11:35 Saltstone Processing of 0.1 Ci/gal Waste at Savannah River Site 10531

  Aaron Staub, Chris Beheler, Jason Adams, Savannah River Remediation, LLC (USA)

Session 32

8:30 AM - 12:00 PM

**Room 101 C** 

**Environmental Remediation Progress Toward Closure of Contaminated Sites** 

**Co-Chairs: Dale Bignell**, Washington Closure Hanford; **Steven Houser**, Oneida Total Integrated

Enterprises (USA)

Sponsor: Erich Evered

**Organizer & Paper Reviewer: Steven Houser** 

- 8:35 Remediation of Buried Waste at the Idaho National Laboratory Site - 10065 Mark Arenaz, US DOE (USA)
- 9:00 Remediation of Potentially Pyrophoric Mixed-Waste at the 618-7 Burial Ground, Hanford Site - 10399 Alan Funk, Jeffrey Case, TerranearPMC, LLC; John Darby, Washington Closure Hanford (USA)
- 9:25 Rehabilitation of Former Uranium Mining and Milling Sites in Germany (WISMUT Sites) A Health Physicists Perspective 10091

**Peter Schmidt**, Wismut GmbH (Germany)

- 9:50 Case Study Catalyzed Hydrogen Peroxide Treatment of a Trichloroethene (TCE) DNAPL Plume - 10073 Steven Thompson, Del Baird, Paul Cross, CDM (USA)
- 10:20 Almost Mission Impossible: The History and Lessons Learned on Completing the Final Remedy for the Mixed Waste Landfill at Sandia National Laboratories New Mexico 10174

  Joe Estrada, NNSA Sandia Site Office; John Cochran, Sandia National Laboratory (USA)
- 10:45 Radiological Release of Monazite Sand Storage Areas at the Great Lakes Naval Training Center - 10231 Joseph Weismann, John Eberlin, Wade Fillingame, Dave Watters, Tim Taylor, Cabrera Services, Inc; Steven Doremus, David Horton, William Morris, Naval Sea Systems Command, Radiological Affairs Support Office; Howard Hickey, US Naval Facilities Engineering Command (USA)
- 11:10 Engineered Containment Systems:
   Identification of Dominant Ecological
   Processes for Long Term Performance
   Assessment and Monitoring 10424
   Brooke Traynham, James Clarke, Vanderbilt
   University; Joanna Burger, Rutgers University;
   William (Jody) Waugh, S.M. Stoller Corporation
- 11:35 Nevada Test Site Environmental Remediation Progress Toward Closure of Contaminated Sites - 10325 Kevin Cabble, US DOE - NNSA/NSO; Patrick Matthews, Stoller-Navarro (USA)

8:30 AM - 12:00 PM

**Room 105 C** 

Transportation Risks and Capturing Lessons Learned

Co-Chairs: Mike Nolan, Dade Moeller & Associates; Paul Jones, DeNuke Services, Inc. (USA) Sponsor & Paper Reviewer: Ella McNeil

Organizers: Paul Jones, Mike Nolan

8:35 The MacArthur Maze and Newhall Pass Fires and Their Implications for Spent Fuel Transport - 10536 Christopher Bajwa, Earl Easton, US NRC (USA)

9:00 Recovery & Reinvestment Act Department of Energy (DOE) Transportation Challenges - 10068

Ella McNeil, US DOE; Jim Portsmouth, EnergySolutions; Randy Dillon, ORAU; Tammy Pressnell, Turnkey Transportation Services LLC (USA)

9:25 Transportation Issues: Simply Random Occurrences or Rather Indicators of Programmatic Failures

- 10533

**Stephen O'Connor**, US DOE; Dana Willaford, US DOE Oak Ridge Operations Office (USA)

9:50 Improving Preparedness for Radiological Transportation Events through Exercises - 10067

**Tom Clawson**, John Riley, Technical Resources Group, Inc.; Ella McNeil, US DOE (USA)

10:20 Prohibited Items in Radioactive Waste Containers: An Analysis of the Health and Safety Benefits Versus Risks

- 10144

**Cassandra Muller**, Johnelle Korioth, Christopher Timm, PECOS Management Services, Inc. (USA)

11:10 Just How Risky Is It? - Comparisons of the Risks of Transporting Radioactive Waste - 10535

Earl Easton, Christopher Bajwa, US NRC (USA)

#### Session 34

8:30 AM - 10:15 AM

Room 104 AB

Worldwide Management of Spent and Disused Radioactive Sealed Sources

**Co-Chairs: Kim Auclair**, KD Auclair & Associates, LLC; **Larry Regens**, University of Oklahoma Health Sciences Center (USA)

Sponsor & Paper Reviewer: Kim Auclair Organizers: Kim Auclair, Hugh Abbott

8:35 Public-Private Dialogue to Address the National Security Concerns Associated with Disused Radioactive Sealed Sources and the Current Sealed Source Disposition
Landscape - 10282

Abigail Cuthbertson, US DOE NNSA: David

**Abigail Cuthbertson**, US DOE NNSA; David Martin, Olin T. Hale, US Department of Homeland Security (USA)

9:00 Offsite Source Recovery Project – Ten Years of Sealed Source Recovery and Disposal - 10460

Julia Whitworth, Michael Pearson, Mark Wald-Hopkins, Ioana Witkowski, Los Alamos National Laboratory (USA); Abigail Cuthbertson, US DOE NNSA (USA)

9:25 Use of Radio Frequency Identification Tracking of Packages Containing Radioactive Material - 10446 Ray Clark, US EPA (USA)

9:50 The Role of a Supplier in the Safe and Secure Management of Disused Radioactive Sealed Sources - 10356 Grant Malkoske, ISSPA (Canada); John Miller, International Isotopes, Inc. (USA); Wolfgang Fasten, Eckert & Zeigler (Germany)

#### Session 35

10:15 AM - 12:00 PM

Room 104 AB

Panel: EFCOG Review of DOE Complex Wide Estimates for Waste Generation, Packaging, Treatment and Disposal Needs Due to the ARRA and Baseline Programs

**Co-Chairs: W.T. (Sonny) Goldston**, Savannah River Nuclear Solutions; **Ginger Humphries**, Savannah River Remediation, LLC (USA)

Sponsor: W.T. (Sonny) Goldston

Organizers: W.T. (Sonny) Goldston, Ginger

**Humphries** 

**Panel Reporter: Ginger Humphries** 

This session will focus on presenting the results from the DOE complex wide coordinated effort conducted by the EFCOG Waste Management Working Group to identify the generation, packaging, treatment and disposal needs to support the American Recovery & Reinvestment Act (ARRA) and baseline scope activities within the DOE cleanup program.

Data presented by the Co-Chairs includes Low-Level Radioactive (LLW), Mixed Low-Level (MLLW), and Transuranic (TRU) wastes anticipated to be dispositioned through Calendar Year 2015. There will be an opportunity to discuss the potential gaps in packaging, treatment, transportation, or disposal needs.

This session is sponsored by the Waste Management Working Group of the Energy Facility Contractors

# Tuesday AM

Group (EFCOG), an organization of DOE contractors formed to promote, coordinate, and facilitate information exchange and lessons learned to improve cost effectiveness of DOE operations. The data and information provided during the workshop is not related to any active procurement and is intended solely as an information exchange.

#### Session 36

8:30 AM - 10:15 AM

Room 103 AB

Panel: Graduating Students and New Engineers - Wants and Needs vs. Corporate Wants and Needs

**Co-Chairs: Robert Berry**, Foxfire Scientific (United Kingdom); **Leonel Lagos**, Florida International University (USA)

Sponsor & Panel Reporter: Robert Berry Organizers: Robert Berry, Collin Donohoue

This panel focuses on new hires and graduating engineers having open lines of communication with employers. Considering the projected shortfalls in the workforce, effective communication of wants-and-needs of both the employer and employee must exist. Currently, it seems that both sides must work harder to achieve this level of communication. With this new approach, both sides can express their wants and needs for a more satisfied workforce and a better work environment.

Panelists: Collin Donohoue, Rickover Fellow, Colorado School of Mines; Corhyn Parr, President, UK-YGN (UK); Leydi Velez, (DOE Fellow) Florida International University; James Miller, Texas A&M University, and Desi Crouther, Director Office of Human Capital, US DOE EM

### Session 37

10:15 AM - 12:00 PM

Room 103 AB

Panel: International Youth Nuclear Congress/Young Professionals

**Co-Chairs: Robert Berry**, Foxfire Scientific (United Kingdom); **Leonel Lagos**, Florida International University (USA)

Sponsor & Panel Reporter: Robert Berry Organizers: Chris Williams, Leonel Lagos

This panel will focus on the International Youth Nuclear Congress – known as IYNC – and covers views on radioactive waste management from young persons' perspectives from all around the world.

An informal panel will enable the future leaders of our industry to share ideas and experiences, and of course, develop contacts within their peer group on a truly international level. By selecting the panel format, it is hoped that the topic will be interactive, stimulating

valuable discussion among the participants and the audience.

The session will be led by members of the Young Generation Network who will actively encourage participation from all those attending. The aim is to encourage fresh thinking and provide an opportunity for an open and frank discussion on issues.

Panelists: Collin Donohoue, Rickover Fellow, Colorado School of Mines; James Miller, Texas A&M University; Corhyn Parr, President, UK-YGN (UK); and Rosa Ramirez, US DOE-EM.

#### **Poster Session 38**

8:30 AM - 12:00 PM

**1st Floor Fover** 

LLW, ILW, MW, NORM & TENORM Posters A-F Nuclear Power Plant Posters - G

Topic A: LLW, ILW, MW, NORM and TENORM Waste Processing

Co-Chairs: Lisa Burns, The Shaw Group; Mike

**Davidson**, *Tidewater (USA)* 

**Sponsor & Paper Reviewer: Colleen Owens** 

- A1. Radiologic Situation on the Territory Near Uranium-Mining Enterprises and Possibility of Soil Phytoremediation - 10379 Polat Kazymbet, Bagdat Imasheva, Meirat Bakhtin, Roza Mustafina, Serik Shaikhin, Astana Medical University (Republic of Kazakhstan)
- A2. The Environmental Restoration Disposal Facility: Hanford's Onsite Disposal Solution for Cleanup Wastes 10342

  Todd Nelson, Bruce Covert, Dale Bignell, Washington Closure Hanford (USA)
- A3. Tritium Management and Removal at Tritium Assaying and Dispensing Facility
   10076

**SoonHwan Sohn**, Kyu-Min Song, Sook-Kyung Lee, Kei-Woo Lee, Byung-Wook Ko, Korea Electric Power Research Institute, KEPCO (Korea)

- A4. Calculation of Permeability and Dispersion Coefficients in Unsaturated Porous Media with Fractures - 10344 Cheo Kyung Lee, Myo Zaw Htway, Handong Global University; Sung Paal Yim, Korea Atomic Energy Research Institute (Korea)
- A5. Performance Test of Ice Packed Respirator for Tritium Removal - 10117 Sung Paal Yim, Hoan Sung Jung, In-Cheol Lim, Guk-Hoon Ahn, Chang-Woo Seol, Korea Atomic Energy Research Institute; Cheo Kyung Lee, Handong Global University (Korea)

# Topic B: L/ILW Waste from D&D/ER Activities

Co-Chairs: Richard Krett, DeNuke Services, Inc.;

(USA); Lance Mezga, ORNL (USA)

Sponsor: David Eaton
Paper Reviewer: Richard Krett

B1. Dexterity Test Data Contribute To Proper Glovebox Over-Glove Use - 10014 Michael Cournoyer, David Apel, Cindy Lawton, Amanda Castro, George Neal, Julio Castro, Roy Michelotti, Steve Costigan, Los Alamos National Laboratory (USA)

- B2. Technology of Plasma Treating Radioactive Waste: The Step Forward in Comparison with Incineration - 10166 Mikhail Polkanov, Sergey Dmitriev, Valeriy Gorbunov, Alexander Kobelev, Ilgiz Kadyrov, Fedor Lifanov, Nikolay Spirin, SIA Radon (Russia)
- B3. Removal of Radiocobalt from EDTA-Complexes using Titanium Antimonate Sorbents - 10305 Risto Harjula, Leena Malinen, Risto Koivula, University of Helsinki (Finland)
- B4. Effectiveness of Decontamination of Fabrics in Compressed Carbon Dioxide or Ozone-Friendly Freon HFC-134a 10074

  Yury Pokhitonov, Vladislav Kamachev, Khlopin Radium Institute (Russia)

# <u>Topic C: Regulatory Implications for LLW, ILW, MW, NORM and TENORM</u>

**Co-Chairs: Dick Blauvelt**, Navarro Research and Engineering, Inc.; **Tammy Monday**, Perma-Fix Environmental Services, Inc. (USA)

**Sponsor & Paper Reviewer: Dick Blauvelt** 

- C1. Environmental Aspects and Safety
  Considerations at Uranium Management
  Facilities in Romania 10373
  Gheorghe Vieru, Institute for Nuclear Research;
  Ioan Muntean, Uranium National Co. (Romania)
- C2. Vector Complex in the Chornobyl Exclusion Zone: 2010-Status and Perspectives - 10250 Volodymyr Tokarevsky, Ukrainian State Corporation Radon; Olexandr Kretinin, STC KORO; Anatoly Novikov, Technocentre; Volodymyr Kholosha, Ministry of Emergency of Ukraine (Ukraine)
- C3. Waste Information Management System -2010 - 10296 Walter Quintero, Himanshu Upadhyay, Peggy Shoffner, Leonel Lagos, David Roelant, Florida

International University (USA)

C4. Inspection of the Point of Burial Radioactive Wastage in Tajikistan - 10178

Dzhamshed Abdushukurov, D.V. Bondarenko, Nazirzhon Buriev, T. Davlatshoev, A.A. Djuraev, Academy of Science of Republic of Tajikistan (Tajikistan)

- C5. Closure of the 92-Acre Area at the Nevada Test Site Area 5 Radioactive Waste Management Site - 10338 Annette Primrose, John Wrapp, NSTec; Robert Boehlecke, US DOE NNSA/NSO; Jeff MacDougall, Nevada Division of Environmental Protection (USA)
- C6. Environmental Legacy of US Nuclear Weapons Production: Where Is It Now? - 10313 Sondra Sarten, RS Construction & Fabrication, Inc. (USA)
- C7. ARAO Efforts, Advantages and Disadvantages in Implementing of Process Management, Renovation of the Public Service Process Supported by Information Business System 10123

  Simona Sucic, ARAO Marija Fabjan, Marko Kostanjevec, Agency for Radwaste Management
- (Slovenia)

  C8. Assessment of Exposure Dose for the General Population around Melting Furnace Facilities due to Meteorological Factors upon Recycling of Radioactive Metallic Wastes 10071

Ahreum Kim, Jooho Whang, Kyung Hee University (Republic of Korea)

C9. Problems in Compliance with the Acceptance Criteria for the KONRAD Mine - 10046 Hardi Krumbach, Hans-Jürgen Steinmetz, Forschungszentrum Jülich GmbH (Germany)

# Topic D: Characterization LLW, ILW, MW, NORM and TENORM

**Co-Chairs: Frazier Bronson**, Canberra Industries Inc - AREVA Group (USA); **Gabriele Bandt**, TÜV NORD EnSys Hannover (Germany)

**Sponsor & Paper Reviewer: Frazier Bronson** 

- **D1.** A Physics Investigation of Deadtime Losses in Neutron Counting at Low Rates with Cf-252 10444
  - **Louise Evans**, Los Alamos National Laboratory; Stephen Croft, Canberra Industries Inc - AREVA Group (USA)
- D2. Validation of Efficiency Calibration for the Clearance Measurement System - 10086 Wei Hwa-jou, Tsai Tsuey-Lin, Yang Ching-Ho, Men Lee-Chung, Tsai Hung I, Institute of Nuclear Energy Research (Taiwan)
- D3. The Efficiency Characterization of Germanium Detectors at Energies Less than 45 keV 10479

**Kara Morris**, Pauline Blanc, Frazier Bronson, Stephen Croft, Michael Field, Wilhelm Mueller, D. Nakazawa, Ram Venkataraman, Hank Zhu, Canberra Industries Inc - AREVA Group (USA)

# **Tuesday AM**

- D4. Sealion Database: Tracking and
  Characterization of Legacy Wastes 10133
  Michel Hall, Brett Welty, James Rivera, Paul
  Walker, Portage, Inc.; Brady Orchard, Reese
  Gannon, Idaho National Laboratory (USA)
- D5. An Integrated Waste Assay System Using Tomographic and Segmented Gamma Scanning For Nuclear Power Plant Applications 10375

  Nabil Menaa, D Nakazawa, Haori Yang, S. Kane Smith, D Petroka, Marcel Villani, Canberra Industries Inc AREVA Group (USA)

# <u>Topic E: Pollution Prevention and Waste</u> <u>Management for LLW, ILW, MW, NORM and</u> <u>TENORM</u>

**Co-Chairs: Gabriele Bandt**, *TÜV NORD EnSys* Hannover (Germany); **Lance Mezga**, Oak Ridge National Laboratory (USA)

**Sponsor & Paper Reviewer: Gabriele Bandt** 

- E1. A Truly Industrial Solution for the Elimination of Radioactive Oils or Solvents 10404
  William Everett, Albert Jacobs, Dewdrops
  (France)
- E2. Radiological Impact Associated to the Use of a NORM Material as a Soil Conditioner in Brazilian Agriculture - 10009 Vanusa Maria Jacomino, Maria Helena Taddei, Brazilian National Commission of Nuclear Energy; Maria Célia Siqueira, Comissão Nacional de Energia Nuclear - Laboratório de Poços de Caldas; Fabiana Dias, Comissão Nacional de Energia Nuclear - Laboratório de Poços de Caldas (Brazil)
- E3. Use and Management of NORM Residues (Phosphogypsum Wastes): Agricultural Applications - 10291 Rachid El Mrabet, National Center for Energy, Sciences and Nuclear Techniques (Morocco)

# <u>Topic F: Emerging Technologies for LLW, ILW, MW, NORM and TENORM</u>

Co-Chairs: Paul Macbeth, US DOE; Mike Eisenhower, Materials & Energy Corporation (USA) Sponsor & Paper Reviewer: Paul Macbeth

F1. Long-Term Stability Testing Results Using Surrogates and Sorbents for Savannah River Site Organic and Aqueous Wastestreams - 10016

**Jody Bickford**, Martin Foote, MSE Technology Applications, Inc; Heather Burns, Savannah River Nuclear Solutions (USA);

F2. Decontamination of Uranium and Antimony from the Spent Catalyst for Acrylonitrile Synthesis by Utilizing Phase Segregation of Borosilicate Glass - 10006
Youichi Enokida, Kayo Sawada, Tsuyoshi

- Yamada, EcoTopia Science Institute, Nagoya University; Hiroshi Sugai, Three R Corporation (Japan)
- F3. NaSelect Multi-Tubular Electrolytic Cell for Sodium Removal from Low Level Waste - 10485 Shekar Balagopal, Scott Suarez, Sai Bhavaraju, Devin Clay, Justin Pendleton, Ceramatec, Inc.

(USA)

- F4. Addressing Challenging Materials at Oak Ridge National Laboratory - 10248 Sharon Robinson, Bradley Patton, Robert Jubin, Ken Schneider, Oak Ridge National Laboratory; Dirk Van Hoesen, UT-Battelle (USA)
- F5. Development of New Treatment Process for Low-Level Radioactive Waste at Tokai Reprocessing Plant - 10403 Atsushi Sugaya, Kenji Tanaka, Shigeru Akutsu, Japan Atomic Energy Agency (Japan)

# <u>Topic G: Operational Waste Management in</u> Nuclear Power Plant (NPP) Waste Management

**Co-Chairs: Wolfgang Steinwarz**, Siempelkamp Nukleartechnik GmbH; **Olaf Oldiges**, GNS mbH (Germany)

**Sponsor & Paper Reviewer: Wolfgang Steinwarz** 

- **G1. Food Contamination Fraction for Radiological Dose Assessment in Korea** 10353

  Youngsik Jang, KHNP-Korea Hydro & Nuclear Co;
  Doo-Ho Lee, **Gab Bock Lee**, Yang Yanghee, Korea
  Electric Power Reseach Institute KEPCO; Jong-Yi
  Moon, Korea Institute of Nuclear Safety (Korea)
- G2. Dispersion Modeling of Liquid Tritium
  Effluent Released from Wolsong Nuclear
  Power Plant Site in Korea 10180
  Gab Bock Lee, Doo-Ho Lee, Yang-Hee Yang,
  Korea Electric Power Research Institute, KEPCO;
  Su-Yong Nam, GeoSystem Research; Sang-Hun
  Lee, Kyungpook National University (Korea)

# Session 39

1:30 PM - 5:00 PM

Room 102 B

Panel: US DOE - Energy Facility Contractors Group's Knowledge Portal (EFCOG) Review

**Co-Chairs: John Longenecker**, *Longenecker* & *Associates, Inc.*; **Pamela Horning**, *B&W Technical Services Group (USA)* 

Sponsor: John Longenecker

Organizer & Panel Reporter: Mark Frei

This panel will focus on the various areas of EFCOG. EFCOG promotes excellence in all aspects of the operation, management, and integration of DOE facilities in a safe, environmentally sound, efficient and cost effective manner through the ongoing exchange of

information on lessons learned. The purpose of this knowledge portal is to provide a vehicle to allow members to keep abreast of the latest news, issues, and events across the US DOE complex; for the sharing of innovative ideas and practices; and to collaborate virtually on the development and implementation of new processes and practices. A short discussion of EFCOG history and accomplishments will be followed by an overview of each of the Working Groups (WGs) and critical updates.

Panelists: Pamela Horning, EFCOG Chair, B&W Technical Services Group; Joe Yanek, EFCOG Vice-Chair, Executive Director, Fluor Corporation; Bob Miklos, Project Management Working Group Vice-Chair (PMWG), Director, Project Management, Idaho National Laboratory; William Morrison, Waste Management Working Group Chair (WMWG), Vice President of Southeast Operations, EnergySolutions, LLC: Roland Knapp, Contractor Assurance Working Group Chair (CAWG), Contractor Assurance Officer, Los Alamos National Laboratory; Al Konetzni, Integrated Safety Management/Quality Assurance Working Group Sponsor (ISM/QG WG) and EFCOG Vice-Chair Elect, Senior Vice President, Federal Services Eastern Operations, EnergySolutions, LLC; and Charles **Kronvall**, Engineering Practices Working Group Chair (EPWG), Manager of Central Engineering, CH2M HILL Plateau Remediation Company.

#### Session 40

1:30 PM - 3:10 PM

Room 105 AB

Panel: Contracting Opportunities in the UK with the Nuclear Decommissioning Authority (NDA)

Co-Chairs: Ron Gorham, Nuclear Decommissioning Authority; Fred Sheil, Sellafield Ltd (United Kingdom) Sponsor & Panel Reporter: Fred Sheil Organizers: Fred Sheil, John Mathieson

This panel will focus on the opportunities at the NDA sites in the United Kingdom. The NDA representatives will outline the forward program of competitions and the Site License Companies will present their procurement plans giving the audience the opportunity for further discussion.

After formal presentations and Q/A, time will also be spent comparing the differences between the DOE EM and UK NDA programs, including the contractor's perspective together with specific future opportunities.

Panelists: Keith Case, Sellafield Ltd (UK); John Dalton, NDA (UK); and Brad Smith, CH2M HILL (UK).

#### Session 41

3:15 PM - 5:00 PM

Room 105 AB

Program Management Improvements - Planning through Completion - Scope, Cost & Schedule Control

**Co-Chairs: Christopher Timm**, *PECOS Management Services, Inc.*; **Neil Davis**, *Washington Savannah River Company (USA)* 

Sponsor & Paper Reviewer: Christopher Timm Organizers: Neil Davis, Sherry M. Keeney

**3:20 D&D Knowledge Management Information Tool - 2010** - 10452

Himanshu Upadhyay, Leonel Lagos, Walter Quintero, Peggy Shoffner, Florida International University; John De Gregory, US DOE-HQ; Jeff Hunter, Hanford ALARA Center of Technology (USA)

- 3:45 Tank Operations Contract Construction
  Management Methodology Utilizing the
  Agency Method of Construction Management
  to Safely and Effectively Complete Nuclear
  Construction Work 10175
  Scott Saunders, Karen Lesko, Peggy Hamilton,
  Washington River Protection Solutions, LLC; Tim
  Heath, Monte Farner, URS Washington Division
  (USA)
- 4:10 Transforming the SRS Environmental Business: Communication and Applied Project Management Principles - 10301 Jeannette Hyatt, Eloy Saldivar, Jr., Savannah River Nuclear Solutions, LLC (USA)
- 4:35 Risk-Based Project Performance Assessment of Large Projects - 10441 John Greeves, Ralph Stoll, Predicus LLC; John Tauxe, Neptune and Company (USA)

#### Session 42

1:30 PM - 5:00 PM

Room 106 C

Worldwide Perspectives of Radioactive Waste Management - Challenges and Solutions

**Co-Chairs: John Mathieson**, NDA (United Kingdom); **Christer Svemar**, M&C Svemar Consulting (Sweden)

Sponsor: John Mathieson Organizers: Mark Matthews

Paper Reviewer: Gérald Ouzounian

1:35 Three Decades Development of a HLW and SF Repository in Germany - The Way Ahead - 10500

**Enrique Biurrun**, DBE TECHNOLOGY GmbH; Walter Steininger, Forschungszentrum Karlsruhe; Siegfried Köster, Bundesministerium für Wirtschaft und Technologie (Germany)

- 2:00 The Swedish Process for Selection of a Site for Localization of a Depository for High **Level Nuclear Waste** - 10528 Carl Reinhold Bråkenhielm. The Swedish National Council for Nuclear Waste (Sweden)
- 2:25 Site Selection for a Geological Repository in France - 10032 Jean-Michel Bosgiraud, Gérald Ouzounian, Thibaud Labalette, Patrick Landais, Sebastien Farin, ANDRA (France)
- 2:50 The US DOE Office of Environmental **Management International Collaboration Program Overview: Interactions, Agreements, and Future Direction** - 10204 James Marra, Kevin Fox, Tim Jannik, Eduardo Farfan, Savannah River National Laboratory: Dong-Sang Kim, John Vienna, Pacific Northwest National Laboratory; Jay Roach, Idaho National Laboratory; Kurt Gerdes, Ana Han, US DOE (USA); Albert Aloy, Khlopin Radium Institute; Sergey Stefanovsky, SIA Radon; Dmitry Lopukh, Electrotechnical University (Russia); Mikhail Bondarkov, International Radioecology Laboratory (Ukraine)
- 3:20 A "Smörgåsbord" of Lessons Learned During 32 Years of Siting and Developing Deep Geological Disposal Systems for Long-Lived, **Highly-Radioactive, Wastes** - 10056 **Leif G. Eriksson**, Consultant (USA)
- 3:45 Rethinking Site Selection Approaches for **Geological Disposal of High-Level Radioactive Waste from Social Psychological** Viewpoints - 10182 Ming Zhang, Geological Survey of Japan, AIST; Takeshi Komai, Junko Hara, National Institute of Advanced Industrial Science and Technology (AIST) (Japan)
- 4:10 Update on the Radioactive Waste Position in **the UK** - 10565 **John Dalton**, Bruce McKirdy, Nuclear Decommissioning Authority (United Kingdom)
- **4:35 The Potential of Pressurized Water Reactors** for Recycle of Americium-Curium - 10376 Mike Thomas, Kevin Hesketh, Andrew Worrall, National Nuclear Laboratory (United Kingdom); Chris Phillips, EnergySolutions (USA)

1:30 PM - 5:00 PM

**Room 106 B** 

**Progress Worldwide in the Closure of Highly Radioactive Storage Tanks and Associated Facilities** 

**Co-Chairs: Keith Miller**, *National Nuclear Laboratory* (United Kingdom); **Tom Brouns**, Pacific Northwest National Laboratory (USA)

**Sponsor: Tom Brouns** 

Organizers: Tom Brouns, Ryan Dodd

Paper Reviewer: Keith Miller

- 1:35 Performance Assessment to Support Closure of Single-Shell Tank Waste Management Area C at the Hanford Site - 10402 Susan Eberlein, Michael Connelly, Marcel Bergeron, Washington River Protection Solutions; Chris Kemp, US DOE - ORP; Elizabeth Rochette, Jeffery Lyon, State of Washington Department of Ecology (USA)
- 2:00 EM-21 Alternative Enhanced Chemical **Cleaning Program for Sludge Heel Removal** - 10308 Michael Hay, William King, Christopher Martino, SRNL (USA)
- 2:25 Deploying Technology Advancements for Characterizing the Vadose Zone in Single-Shell Tank Waste Management Areas - 10167 Susan Eberlein, Harold Sydnor, David Myers, Washington River Protection Solutions (USA)
- 2:50 Performance Assessment Progress for the F-Tank Farm at Savannah River Site - 10111 Mark Layton, Savannah River Remediation, LLC (USA)
- 3:20 Research in Management of Corrosion in High Level Waste Tanks - 10367 Elizabeth Hoffman, Philip Zapp, Thomas Edwards, Savannah River National Laboratory (USA)
- 3:45 Investigation of Radiation and Chemical **Resistance of Flexible HLW Transfer Hose** - 10393

Thomas Skidmore, Kenneth D. Billings, Savannah River National Laboratory; Michael Hubbard, Savannah River Remediation (USA)

- 4:10 General Closure Plan for the F-Tank Farm at Savannah River Site - 10102 Marcia Birk, Savannah River Remediation (USA)
- 4:35 Comparison of Oxalic Acid Cleaning Results at SRS and Hanford and the Impact on **Enhanced Chemical Cleaning Deployment** - 10310

Renee Spires, Washington Savannah River Company (USA)

#### Session 44

1:30 PM - 5:00 PM

Room 106 A

**Advanced Technologies and Approaches Applied** to Problematic, Special Case TRU Waste

Co-Chairs: Roger Nelson, US DOE; **Terry Wickland**, Nuclear Filter Technology (USA)

**Sponsor: Roger Nelson** 

**Organizer & Paper Reviewer: Terry Wickland** 

1:35 Characterization, Certification and Shipment of TRU Waste Speed Bumps and Potholes on the Road to WIPP - 10104

Dick Blauvelt, Steven Calvert, Wayne Ledford, Navarro Research and Engineering, Inc. (USA)

- 2:00 AREVA Mobile Hot Cell Technology to Retrieve, Process, Characterize and Package TRU Waste - 10118 Robert Zimmerman, AREVA Federal Services, LLC; Laurent Care, AREVA TA LLC (USA)
- 2:25 Operating Experience from RH-TRU
  Processing at the Argonne National
  Laboratory Building 205 K-Wing Hot Cell
  Facility 10488
  Devin Hodge, Kevin Crosson, Argonne National
  Laboratory; John Mackin, PMP, Hukari Technical
  Services, Inc. (USA)
- 2:50 Enabling Completion of the Material
  Disposition Area G Closure at the Los
  Alamos National Laboratory 10515
  James Blankenhorn, Los Alamos National
  Laboratory; Lee Bishop, US DOE LASO EM (USA)
- 3:20 Acoustic Mixing and Treatment of Organic Waste: Results of Proof of Principle - 10168 William Lattin, US DOE; Rodney Arbon, Bechtel BWXT Idaho, LLC; John Bickley, Peter Lucon, Resodyn Corporation (USA)
- 3:45 Evaluation of 55-gallon Lead-Lined Calibration for the Gamma Modality of the High Efficiency Neutron Counter - 10465 Sean Stanfield, Joe Wachter, Doug Cramer, Sheri Chambers, Curt Baumann, Canberra Industries Inc - AREVA Group; Joe Harvill, Washington TRU Solutions, LLC (USA)
- 4:10 New Light-Weight Facility Cask for Remote-Handled Waste Disposal at the WIPP Facility, New Mexico, USA - 10050 Richard Farrell, US DOE; Soledad Sifuentes, Curtis Chester, Washington TRU Solutions LLC (USA)

1:30 PM - 5:00 PM

**Room 101 B** 

Programmatic, Regulatory and Statutory Issues and Solutions for LLW, ILW, Mixed, NORM and TENORM & Depleted Uranium

**Co-Chairs: Gabriele Bandt**, TÜV NORD EnSys Hannover (Germany); **David Eaton**, CH2M-WG Idaho, LLC (USA)

**Sponsor: David Eaton** 

**Organizer & Paper Reviewer: Gabriele Bandt** 

1:35 Implementation of Requirements on Non-Radioactive Waste Package Constituents -10449

> **Peter Brennecke**, Karin Kugel, Stefan Steyer, Federal Office for Radiation Protection; Wilma Boetsch, Claudia Haider, ISTec GmbH; Detlef Gründler, Institute for Safety Technology (Germany)

- 2:00 E.ON Kernkraft's View Regarding the Necessary Steps for a Successful Commissioning of the Emplacement of Radioactive Waste in Final Repository Konrad Mine - 10415 Holger Spann, Friedrich Herzog, Daniel Engelking, E.ON Kernkraft GmbH (Germany)
- 2:25 Possible Changes in Waste Management
  Policy Regarding Dilution of LLW to Change
  Waste Classification: Texas Offers a Better
  Solution 10214
  J. Scott Kirk, William Dornsife, Jeffrey Skov,
  Waste Control Specialists LLC (USA)
- 2:50 The Process and Outcome from the Strategic Best Practicable Environmental Option (BPEO) Study for the Management and Disposal of Very Low Level Waste in the United Kingdom - 10228 Stephen Dooley, Entec UK Ltd (United Kingdom)
- 3:20 The Role of Specified Landfill in the Implementation of the Sellafield Low Level Waste Strategy 10023

  David Loudon, Sellafield Ltd (United Kingdom)
- 3:45 The Establishment of Treatment Options for the United Kingdom Low Level Waste Inventory Specifically Metallic LLW Recycling - 10033 Michael Gracey, Low Level Waste Repository; Dave Weatherburn, Matthew Clark, Nuclear Decommissioning Authority (United Kingdom)
- 4:10 Importing and Exporting Radioactive Materials and Waste for Treatment, Processing and Recycling - 10575 John Greeves, Jim Lieberman, Talisman International, LLC (USA)
- 4:35 The Underground Test Area Project of the Nevada Test Site: The Role of Modeling, Monitoring and Institutional Controls in Establishing Regulatory Protection of the Public 10349

  Sam Marutzky, Bruce Crowe, Greg Ruskauff, Navarro Nevada Environmental Services; Bill

#### Session 46

Wilborn, US DOE NNSA NSO (USA)

1:30 PM - 5:00 PM

Room 101 C

#### **D&D of US DOE Facilities**

Co-Chairs: Julia Tripp, Idaho National Laboratory; Andrew Szilagyi, US DOE (USA)

Sponsor: Andrew Szilagyi

Organizers: Julia Tripp, Andrew Szilagyi

Paper Reviewer: Julia Tripp

1:35 A Systematic Approach to Implementing Aging Management at Nuclear Waste Facilities - 10213

> **Jou Hwang**, P.T. Kuo, Advanced Technologies and Laboratories International, Inc.; Andrew Stevens, William Taylor, US DOE - ORP (USA)

- 2:00 Closure of the Idaho National Laboratory
  Advanced Test Reactor Complex Catch Tank
  and Hot Waste Tank Systems 10240
  Brett Welty, Sara Verba, Donna Nicklaus, Doug
  Collins, Portage, Inc.; Ernie Carter, Carter
  Technologies Co. (USA)
- 2:25 Planning for Decontamination of the Plutonium Fuel Form (PuFF) Facility at the Savannah River Site (SRS), South Carolina 10095

**Richard Abitz**, Andrew Duncan, Marie Kane, Raymond Dewberry, Savannah River National Laboratory; Joe Santos, Savannah River Nuclear Solutions, LLC (USA)

- 2:50 Preparing the West Valley Fuel
  Reprocessing Facility for Demolition West
  Valley Demonstration Project (WVDP), West
  Valley, NY, USA 10423
  Mark Hackett, Cynthia Dayton, Joseph Ebert,
  David Kurasch, West Valley Environmental
  Services, LLC; Geoffrey Gorsuch, US DOE (USA)
- 3:20 D&D of the Radioisotope Development
  Laboratory (3026 Complex) and the
  Quonset Huts (2000 Complex) at Oak Ridge
  National Laboratory Funded by the
  American Recovery and Reinvestment Act
   10255

**T.B. Conley**, Ken Schneider, Dirk Van Hoesen, Michael Harper, D.L. Dillinger, ORNL; Theresa M. Walsh, Management Solutions LLC; Marshall Johnson, Restoration Service Inc.; Karen Billingsley, Xcel Engineering Inc (USA)

- 3:45 Removal, Packaging and Disposal of Hanford 327 Building Hot Cells at the Hanford Site, Washington, USA - 10484 Gary MacFarlan, Worley Parsons Polestar (USA)
- **4:10** In Situ Decommissioning Moves Ahead 10345

Charles Negin, Project Enhancement Corporation; Andrew Szilagyi, Yvette Collazo, US DOE; Patricia Lee, John Gladden, Roger Seitz, Savannah River National Laboratory; Michele Wilson, Savannah River Nuclear Solutions (USA)

International University; Mike Serrato, Savannah

4:35 Determining the Effects of Radiation on Aging Concrete Structures of Nuclear Reactors - 10243 Cristian Acevedo (DOE Fellow), Florida

River National Laboratory (USA)

Session 47

1:30 PM - 5:00 PM

Room 105 C

US - Formerly Utilized Sites Remedial Action Program (FUSRAP) and Other US Army Corp of Engineers Projects

**Co-Chairs: Allen Roos**, US ACE; **Steven Brown**, SHB Inc. (USA)

Sponsor & Paper Reviewer: Allen Roos Organizers: Steven Brown, Allen Roos

- 1:35 Waste Characterization at the Harshaw FUSRAP Site Cleveland, OH - 10270 Andrea Kolhoff, Edwin Bave, Richard Waples, Brian Hearty, US ACE (USA)
- 2:00 Formerly Utilized Sites Remedial Action Program Experience, A Site Owner's Guide - 10235

John MacEvoy, US ACE, Retired (USA)

- 2:25 Implementation of the Formerly Utilized
  Sites Remedial Action Program:
  Coordination between the US DOE and the
  US Army Corps of Engineers 10352
  Christopher Clayton, Vijendra Kothari, US DOE;
  Michael Widdop, Joey Gillespie, S.M. Stoller
  Corporation (USA)
- 2:50 Partnering Success: Coordinating FUSRAP
  Site Remediation with a Major State
  Highway Construction Project 10055
  William Kollar, Shaw Environmental, Inc.; Allen
  Roos, US ACE (USA)
- 3:20 Incorporation of Multiple Analytical
  Techniques and Data Streams to Accomplish
  Remedial Investigation Objectives:
  Determination of Nature and Extent of
  Radiological Contamination at the Guterl
  FUSRAP Site, Lockport, New York 10482
  Susan Walter, James Kaczor, AECOM; Karen
  Keil, Peter Lorey, Thomas Kenna, Stephen
  Bousquet, US ACE (USA)
- 3:45 Optimizing Survey Unit Design to Mitigate the Potential Impacts of Wastewater on Remedial Costs and Final Status Survey Unit Integrity 10153

  Scott Walnicki, Safety and Ecology Corporation (SEC); Michael Winters, Shaw Environmental & Infrastructure Group; David Hays, US ACE (USA)
- 4:10 FUSRAP Cost and Schedule Risk Analysis
   10525
  Stephen Buechi, Todd Kufel, Fredrick Boglione,
  David Frothingham, US ACE (USA)
- 4:35 Radionuclide Data Evaluation Guidance –
  Implementation and Lessons Learned 10258

**Brian Tucker**, Shaw Environmental & Infrastructure, Inc; David Evans, US ACE (USA)

1:30 PM - 3:10 PM

Room 103 AB

Panel: ER Projects Contributing to the IAEA - ENVIRONET

**Co-Chairs: Horst Monken Fernandes**, International Atomic Energy Agency (Austria); **Karen Smith**, Argonne National Laboratory (United Kingdom)

**Sponsor: Gary Benda** 

Organizer & Panel Reporter: Horst Monken

**Fernandes** 

This panel will feature presentations on the scope of the ER activities contributing to the IAEA Environet. Presentations will include an overview of the approaches and updated techniques employed in these ER Projects. This session is the second in a series of sessions organized at WM2010 by IAEA on the international Environet Network.

Panelists: Christian Kunze, WISMUT (Germany); Charlotte Cazalla, IRSN (France); Elna Fourie, NECSA, South African Atomic Energy Commission (South Africa); Sergey Mikheykin, FSUE "RosRAO" (Russia); Peter Booth, National Nuclear Laboratory (UK); and Lina Al Atar, Atomic Energy Commission of Syria (Syria).

#### Session 49

3:15 PM - 5:00 PM

Room 103 AB

#### Lessons Learned from ER Projects in the UK

**Co-Chairs: Angie Jones**, AMEC Earth & Environmental (USA); **Brad Smith**, CH2M HILL International (United Kingdom)

Sponsor, Organizer & Paper Reviewer: Angie Jones

- 3:20 The Complex Challenges of Risk and Hazard Reduction for a Legacy Fuel Pond at Sellafield, UK - 10197 Jack Williamson, David Forsythe, Sellafield Ltd (United Kingdom)
- 3:45 Programmisation A Shift in Managing Decommissioning Challenges, Magnox South, UK - 10100 Mark Lesinski, Magnox South Ltd (United Kingdom)
- 4:10 External Exposure from Contaminated Marine Sediment: Lessons Learned for Dose Assessment and Site Management - 10529 Adrian Punt, AMEC (United Kingdom)
- **4:35** Signature Research on Legacy Management at the National Nuclear Laboratory, UK 10362

**Anthony Banford**, National Nuclear Laboratory (United Kingdom)

#### Session 50

1:30 PM - 3:10 PM

Room 104 AB

Panel: US Nuclear Power Plant Waste Management - LLW Processor Issues

Co-Chairs: Mark Lewis, EnergySolutions; Jay Maisler, Enercon Services, Inc (USA) Sponsor, Organizer and Panel Reporter: Mark Lewis

This panel will focus on US waste processors and provide the opportunity for representatives of US fixed-based processing facilities to update managers of radioactive waste at nuclear power plants on service and facility changes and improvements. Fixed-based processing facilities provide a variety of waste volume reduction, treatment, and disposal services to help nuclear power waste generators to cost effectively and efficiently dispose of low-level radioactive waste within commercial regulated guidelines. Processors are continuously changing and improving on services, which necessitate periodic updates to stay abreast.

Panelists: John Hagan, Perma-Fix Environmental Services, Inc.; Bill Smart, Impact Services, Inc.; Jimmy Harris, Studsvik; Assef Azadeh, EnergySolutions; and Steve Ferguson, Alaron Corporation.

#### Session 51

3:15 PM - 5:00 PM

Room 104 AB

Panel: US Nuclear Power Plant Waste Management - LLW Disposal Issues

Co-Chairs: C. Clint Miller, Pacific Gas & Electric; Mark Carver, Entergy Services, Inc. (USA) Sponsor & Panel Reporter: C. Clint Miller Organizers: C. Clint Miller, Mark Lewis

This panel will focus on LLW Disposal and provides the opportunity for the representatives of US LLW Disposal Sites to update nuclear power plant managers on site license and facility changes and improvements. US LLW disposal site licenses and waste acceptance criteria periodically change, which necessitate periodic updates to stay abreast.

Panelists: Steve Romano, Chairman of the Board, American Ecology; David Cronshaw, Vice President of Business Development, Waste Control Specialists LLC; Jeffrey Ginsburg, EnergySolutions; and William House, Vice President of Regulatory Affairs, EnergySolutions.

#### **Poster Session 52**

1:30 PM - 5:00 PM

1st Floor Foyer

Environmental Remediation Posters A-D Communication, Education & Training Posters - E Security, Safety & Safeguards Posters - F

# <u>Topic A: Environmental Remediation Progress In Characterization</u>

**Co-Chairs: Angie Jones**, AMEC Earth & Environmental; **David Wallace**, CDM (USA)

**Sponsor: Angie Jones** 

**Paper Reviewer: David Wallace** 

- A1. Remote-Controlled Collimated System
  Gamma Locator for Remote Measurements of
  Radioactivity Distribution 10388
  Viktor Volkov, Oleg Ivanov, Sergey Smirnov,
  Vyacheslav Stepanov, Alexey Danilovich, Anatoly
  Volkovich, Russian Research Center Kurchatov
  Institute (Russia)
- A2. Automating Groundwater Sampling at Hanford - The Next Step - 10223 Carl Connell, CH2M Hill Plateau Remediation Company; DeVon Cunningham, Lockheed Martin; Scott Conley, CH2M HILL Plateau Remediation Company; R. Douglas Hildebrand, US DOE (USA)
- A3. Investigation into Natural and Anthropogenic Radionuclide Contamination on the Absheron Peninsula, Azerbaijan - 10208 Gudrat Mamedov, Mahammadali Ramazanov, Baku State University; Jalal Naghiyev, Institute of Radiation Problems of ANAS; Afat Mehdiyeva, Masiva Bakirova, National Aerospace Agency of Ministry of Defense Industry; Tjalle Vandergraaf, Providence College (Canada)
- **A4.** Managing Legacy Records and Information 10420

**Jeanie Gueretta**, US DOE; Cliff Anglim, Gordon Weaver, Source One Management, Inc. (USA)

A5. Development of a Biosensor for Detection of Phosphate Species in Uranium Contaminated Ground Water and Wastewater Sediments
- 10314

**Serkan Akar** (DOE Fellow), Vekalet Tek, Leonel Lagos, Puneet Gill, Norman Munroe, Florida International University (USA); Adam Bange, Xavier University; Thomas Thundat, Oak Ridge National Laboratory (USA);

A6. Remedial Investigation of Hanford Site Releases to the Columbia River - 10559 Jeff Lerch, Larry Hulstrom, Washington Closure Hanford, LLC (USA)

# <u>Topic B: Environmental Remediation Progress in Modeling</u>

**Co-Chairs: Angie Jones**, AMEC Earth & Environmental; **Del Baird**, CDM (USA)

Sponsor: Angie Jones Paper Reviewer: Del Baird

- B1. Theoretical Consideration in Designing a Sediment-Packed Column for Phosphate and Polyphosphate Transport Study under Saturated Flow Conditions Relevant to the DOE-Hanford Site 10489

  Prabhakar Pant, Leonel Lagos, Florida International University (USA)
- B2. Dispersion of Radionuclides in Aquatic Ecosystems: Remedial Actions - 10374 Rachid El Mrabet, Nabil Dehbi, A. Laissaour, National Center for Energy, Sciences and Nuclear Techniques (Morocco)
- B3. Model Uncertainty Approaches Frenchman Flat Corrective Action Unit, Nevada Test Site 10350

  Greg Ruskauff, Bruce Crowe, Navarro Nevada

Greg Ruskauff, **Bruce Crowe**, Navarro Nevada Environmental Services (USA)

# <u>Topic C: Environmental Remediation Corrective</u> <u>Actions - Part 1 of 2</u>

**Co-Chairs: Angie Jones**, *AMEC Earth & Environmental*; **Steven Houser**, *Oneida Total Integrated Enterprises (USA)* 

**Sponsor: Angie Jones** 

Paper Reviewer: Steven Houser

- C1. Evaluation of 14C Release Characteristics in Korean Pressurized Water Reactor Nuclear Power Plants - 10185 Yang Yanghee, Gab-Bock Lee, Korea Electric Power Research Institute, KEPCO (Korea)
- **C2.** Safety Upgrading of Maisiagala Site 10416 Stasys Motiejunas, Algirdas Vaidotas, Radioactive Waste Management Agency; Arunas Gudelis, Institute of Physics (Lithuania); Michel Dutzer, ANDRA (France);
- C3. Groundwater Monitoring Wells Installed in a Radioactive and Hazardous Waste Landfill Using Direct Push Technology in Lieu of Conventional Drilling Methods 10037 Wendy Stewart, Marc Hill, CDM (USA)
- C4. Methods to Determine Corrective Action Boundaries at Aerially-Dispersed Radiological Release Sites - 10334 Raymond (Lynn) Kidman, Harold Anagnostopoulos, Patrick Matthews, Stoller-Navarro; Robert Boehlecke, Kevin Cabble, US DOE NNSA/NSO (USA)
- C5. Low-Level Perchlorate Contamination and Complex Regulatory Requirements at the Burn Site Groundwater Investigation Study

Area, Sandia National Laboratories/New Mexico - 10395

Michael Skelly, Weston Solutions, Inc.; **John Cochran**, David Miller, Sandia National
Laboratory; John Gould, US DOE (USA)

# <u>Topic D: Environmental Remediation Corrective</u> Actions - Part 2 of 2

**Co-Chairs: Angie Jones**, AMEC Earth &

Environmental; John Kristofzski, CH2M HILL (USA)

**Sponsor: Angie Jones** 

Paper Reviewer: John Kristofzski

- D1. Response of Hanford Site Soil Arthrobacter Isolates to Uranium Contamination - 10493 Reshmi Banerjee, Denny Carvajal, Yelena Katsenovich, Leonel Lagos, Berrin Tansel, Chenzhong Li, Florida International University (USA)
- D2. Adsorption of Dissolved Metals in the Berkeley Pit using Thiol-Functionalized Self-Assembled Monolayers on Mesoporous Supports (Thiol-SAMMS) - 10150 Amaury Betancourt (DOE Fellow), Florida International University; Dawn Wellman, Shas Mattigod, Pacific Northwest National Laboratory (USA)
- D3. Use of Gas Transported Reactants for Uranium Remediation in Vadose Zone Sediments 10289

  Jim Szecsody, Lirong Zhong, Michael Truex, Tom Resch, Mark Williams, Pacific Northwest National Laboratory (USA)
- D4. The Role of Organic Carbon in Facilitating Mercury Sorption and Retention in the Soil: Some Field Evidence from Oak Ridge, Tennessee 10391

  Prabhakar Pant, Marshall Allen, Berrin Tansel, Florida International University (USA)
- D5. Hybrid Wet Technology for Soil
  Decontamination 10294
  Volodymyr Tokarevsky, Ukrainian State
  Corporation Radon; Gennady Lobach,
  Technocentre (Ukraine)
- D6. Infiltration and Injection of a Ca-Citrate-P04
  Solution to Form Apatite InSitu for Sr-90
  Remediation at the Hanford 100N Area An
  Update 10115
  Jim Szecsody, John Fruchter, Vince Vermeul,

Jim Szecsody, John Fruchter, Vince Vermeul, Mark Williams, Brad Fritz, Donald Mendoza, Jim McKinley, Pacific Northwest National Laboratory (USA); Robert Moore, Sandia National Laboratories (USA)

D7. A Study of the Mercury (II) Sorption and Transport with Oak Ridge Reservation Soil - 10222

**Yelena Katsenovich**, Georgio Tachiev, Hector R. Fuentes, David Roelant, Alexander Henao, Florida International University (USA)

## <u>Topic E: Public Communication, Participation,</u> Education and Training

Co-Chairs: Helen Belencan, Karen Guevara, US

DOE – Savannah River (USA) Sponsor: Helen Belencan

Paper Reviewer: Cherri DeFigh-Price

- E1. Historical Data Recovery for Accelerated Site Closure, Nevada Test Site, Nevada 10336
  Anne White, Annette Primrose, NSTec (USA)
- E2. What Matters to Citizens Living Near the Nevada Test Site? - 10220 Helen Neill, University of Nevada, Las Vegas (USA)
- E3. Communication Uranium Mine in the Decommissioning with Regional and Local Society 10271

  Cicero Cavini, Brazilian Nuclear Energy
  Commission. Poços de Caldas Laboratory (Brazil)

### **Topic F: Security, Safety and Safeguards**

**Co-Chairs: Kim Auclair**, KD Auclair & Associates, LLC (USA); **Larry Regens**, University of Oklahoma Health Sciences Center (USA)

**Sponsor & Paper Reviewer: Kim Auclair** 

- F1. A Study on the Nuclear Proliferation Resistance Assessment of Fuel Cycle in Korea - 10126 Yoon Hee Lee, Jongkuk Lee, Kun Jai Lee, KAIST
  - Yoon Hee Lee, Jongkuk Lee, **Kun Jai Lee**, KAIST (Korea)
- F2. Precision of the Accidentals Rate in Neutron Coincidence Counting - 10475 Nabil Menaa, Stephen Croft, Pauline Blanc, Canberra Industries Inc - AREVA Group (USA)
- F3. Ensuring Enhanced Nuclear Safety at Sellafield During the Remediation of Legacy Facilities 10057

  Jack Williamson, Sellafield Ltd (United Kingdom)

### March 10, Wednesday AM

# Session 53

8:30 AM - 10:10 AM

Room 102 B

Panel: US DOE Procurement and Contracting Opportunities

**Co-Chairs: John Longenecker**, Longenecker & Associates, Inc.; **Cathy Hickey**, URS Corporation (USA)

Sponsor & Panel Reporter: Cathy Hickey Organizers: John Longenecker, Cathy Hickey

# Wednesday AM

The panel will focus on the procurement process and what lessons learned and best practices have been developed by US DOE EM and NNSA over the last year. Senior DOE Contracting Officials will share their visions. This panel compliments Panel 54 which focuses on US DOE Contractor's Procurement and Contracting activities. The panel will be open to all WM2010 participants and Exhibitors.

Panelists: John Surash, DAS Acquisition & Project Management DOE-EM; Ralph E. Holland, Assistant Director, Environmental Management Consolidated Business Center, US DOE-EM CBC; Patty Wagner, Manager, Sandia Site Office, US DOE NNSA; George Johnson, Strategic Marketing Consultants

#### Session 54

10:15 AM - 12:00 PM

**Room 102 B** 

Panel: US DOE Contractor's Procurement and Contracting Opportunities

**Co-Chairs: Steven Houser**, Oneida Total Integrated Enterprises (USA); **John Coffman**, DeNuke Services, Inc. (USA)

Sponsor & Panel Reporter: Steven Houser Organizers: John Coffman

This panel session will focus on procurement and contracting opportunities with the US DOE's contractors. US DOE encourages its prime contractors to obtain goods and services from small and disadvantaged businesses. Award fee is based partially on the contractor's success in achieving specific goals for subcontracts with small and disadvantaged businesses. This session complements Session 53 which focuses on contracting activity directly with the US DOE. WM2010 Exhibitors are encouraged to attend this panel session.

Panelists: Ralph E. Holland, Assistant Director, Environmental Management Consolidated Business Center, US DOE; Dave Oren, Vice-President, CH2MHill; Keith Joy, Director, Small Business Programs, Oak Ridge National Laboratory; Jeff Stevens, Chief Operating Officer, Energy Solutions Federal; and Chuck Bernhard, Senior Business Development Manager, B&W Technical Services Group.

### Session 55

8:30 AM - 10:10 AM

Room 105 AB

Panel: Blending US Commercial Low-Level Waste to Modify its Class to Disposal: Risk Informed or Deregulation?

Co-Chairs: Larry Camper, US NRC Christine Gelles, US DOE (USA) Sponsor & Organizer: Larry Camper Panel Reporter: Maurice Heath

This panel focuses on examining the ongoing and increasing practice of blending US low-level radioactive waste to modify its class to facilitate disposal. The discussion will address blending of Class B and C waste with Class A waste to reduce the overall waste stream to Class A waste. The panel will also examine if this practice should be viewed as risk-informed or deregulation in nature.

Panelists: Christianne Ridge, US NRC; Thomas Magette, Senior VP, Nuclear Regulatory Strategy, EnergySolutions; William Dornsife, VP, Waste Control Specialists LLC; James Clarke, Professor, Vanderbilt University; Michael Mobley, Chair, Southeast Compact Commission and Diane D'Arigio, Nuclear Research Information Services (NIRS)(USA).

#### Session 56

10:15 AM - 12:00 PM

Room 105 AB

Panel: Disposition of DOE High-Activity Mixed Waste: Post 2010: Problematic or No Problem?

Co-Chairs: Dick Blauvelt, Navarro Research and Engineering, Inc.; Christine Gelles, US DOE (USA) Sponsor, Organizer & Panel Reporter: Dick Blauvelt

This topic focuses on the disposition of DOE highactivity mixed hazardous/radioactive waste (MW) and other problematic mixed waste streams. US DOE sites have the bulk of the inventory of high-activity MW, but even small volume orphan streams can cause problems to their owners. There is a window of opportunity for disposition of LDR treated mixed US DOE LLW at the Nevada Test Site, but shipments to date have fallen far short of projections and needs. Will ARRA stimulus funding help this shortfall? When the NTS window is closed in 2010 what options could be and/or should be pursued to assure continued access for future disposition of mixed Class B and C LLW inventories from US DOE and to a lesser extent from the commercial sector? Will the WCS disposal site make the mixed waste challenges of today a no-never mind issue down the road?

Panelists: Dick Blauvelt, Senior Technical Specialist, Navarro Research and Eng., Inc.; Christine Gelles, Director, Office of Disposal Operations, US DOE; Jeffrey Mousseau, Bechtel BWXT Idaho, LLC; Frank DiSanza, US DOE NSO; Chris Duy, Environmental Manager, Los Alamos National Laboratory; Paul Larsen, EnergySolutions; Renee Echols, Perma-Fix Environmental Services; and Michael Lauer, VP of Business Development, Waste Control Specialists LLC.

8:30 AM - 12:00 PM

Room 103 AB

Performance Assessment of Geological Disposal Systems

**Co-Chairs: Simon Kwong**, *National Nuclear Laboratory (United Kingdom)*; **Tjalle Vandergraaf**, *Providence College (Canada)* 

Sponsor & Paper Reviewer: Tjalle Vandergraaf Organizers: Tjalle Vandergraaf, Simon Kwong

8:35 A New Initiative for Developing Advanced Simulation Capabilities for Environmental Management (ASCEM) – 10470
Ming Zhu, Russell Patterson, Roger Nelson, John Wengle, US DOE; Juan Meza, Lawrence Berkeley National Laboratory; David Moulton, Paul Dixon, Los Alamos National Laboratory; Ian Gorton, Mark Freshley, Pacific Northwest National Laboratory; Roger Seitz, Savannah River National Laboratory (USA)

9:00 On the Accuracy of Parameters Derived from Permeation and Diffusion Experiments - 10134

Ming Zhang, Geological Survey of Japan, AIST (Japan)

- 9:25 Coupling Diffusive Transport and Chemical Reaction in the Generalised Repository Model (GRM) 10047
  Simon Kwong, Joe Small, National Nuclear Laboratory (United Kingdom)
- 9:50 Tracking the Chemical Footprint of Surface-Runoff Infiltration on Groundwater Recharge in an Arid Region - 10454 Omar Al-Qudah, John Walton, Arturo Woocay, University of Texas at El Paso (USA)
- 10:20 Perspectives of Radioactive Waste Disposal in Germany 10448

  Peter Brennecke, Bundesamt für Strahlenschutz, Salzgitter
  (Germany)
- 10:45 Treatment of Human Intrusion into a Repository for Radioactive Waste in Deep Geological Formations - 10010 Thomas Beuth, Martin Navarro, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH; (Germany)
- 11:10 Analytical Study on Groundwater Flow System with Climate Change: Case Study for Boso Peninsula in Japan - 10371 Masahiro Munakata, Ryutaro Sakai, Maki Namekawa, Hirotaka Fuchiwaki, Japan Atomic Energy Agency, Nuclear Safety Research Center (Japan)

11:35 Groundwater Modeling in Support of Remedial Process Optimization: Implementing a Developing Conceptual Site Model into Comparative Remedy Analyses - 10319

Alex Spiliotopoulos, Matthew Tonkin, S.S. Papadopulos & Associates, Inc; David Shrimpton, Jon Blount, Tom Simpkin, CH2M Hill Plateau Remediation Company; James Hanson, US DOE (USA)

#### Session 58

8:30 AM - 10:15 AM

Room 104 AB

DOE Yucca Mountain Update: HLW and SNF Disposal and Perspectives from Around the Mountain

**Co-Chairs: Linda Lehman**, CH2M HILL Plateau Remediation Company (USA); **Christer Svemar**, M&C Svemar Consulting (Sweden)

Sponsor: Leif G. Eriksson

Organizers: Linda Lehman, Leif G. Eriksson

Paper Reviewer: Linda Lehman

8:35 Why We Can Not "Solve" the Radioactive Waste "Problem" With the Current Science, Technology, Regulations and Societal Demands - 10085

Frank Parker, Vanderbilt University (USA)

9:00 Oxidation/Reduction Status of Water Pooled in a Penetrated Nuclear Waste Container - 10265

**Lubna Hamdan**, John Walton, Omar Al-Qudah, University of Texas at El Paso; Arturo Woocay, Instituto Tecnologico de Ciudad Juarez (Mexico)

- 9:25 Quo Vadis, Herr NucleUS? 10018 Leif G. Eriksson, Consultant (USA)
- 9:50 US Nuclear Industry Participation in the Yucca Mountain Licensing Process - 10049 Rod McCullum, Michael Bauser, NEI (USA)

# Session 59

10:15 AM - 12:00 PM

Room 104 AB

Global Advances in Repository Sciences and Engineering

**Co-Chairs: Jean-Michel Bosgiraud**, ANDRA (France); **Enrique Biurrun**, DBE TECHNOLOGY GmbH (Germany)

**Sponsor & Paper Reviewer: Leif G. Eriksson Organizers: Leif G. Eriksson, Roger Nelson** 

10:20 Salt Rock Mechanics — Prediction vs.
Performance - WIPP Provides Answers
- 10411 Frank Hansen, Sandia National
Laboratory (USA)

- 10:45 Robustness A Design Principle for the Operation of a Repository for Heat-generating Waste? 10011
  Stefan Weber, Frank Peiffer, GRS mbH (Germany)
- 11:10 Technical Milestones for Emplacing Vitrified Waste Canisters into Horizontal Disposal Drifts in a Clay Host Formation - 10019

**Jean-Michel Bosgiraud**, Daniel Delort, Alain Roulet, Olivier Glenet, Jean-Jacques Guenin, ANDRA (France)

11:35 Thermal Analyses of a Generic Salt Repository with High-Level Waste - 10429 Daniel Clayton, Sandia National Laboratories (USA)

#### Session 60

8:30 AM - 12:00 PM

**Room 106 C** 

Worldwide Technical Innovation in HLW Treatment

**Co-Chairs: Terri Fellinger**, Savannah River Remediation (USA); **Christian Ladirat**, CEA Marcoule (France)

**Sponsor: Tom Brouns** 

(USA)

**Organizers: Tom Brouns, Christian Ladirat** 

Paper Reviewer: Terri Fellinger

- 8:35 Hanford Tank Waste What is in it? Where is it going? 10277

  Reid Peterson, Sandy Fiskum, Lanee Snow, Pacific Northwest National Laboratory; Rick Shimskey, Pacific Northwest National Laboratory; Matthew Edwards, Battelle PNNL
- 9:00 Process Testing Results and Scaling for the Hanford Waste Treatment and Immobilization Plant (WTP) Pre-treatment Engineering Platform 10173

  Dean Kurath, Lenna Mahoney, Jim Huckaby, Richard Daniel, David Baldwin, Brian Rapko, Pacific Northwest National Laboratory; Steve Barnes, URS; Rob A. Gilbert, US DOE (USA)
- 9:25 Role of Dawsonite in Aluminum Solubility for Hanford Tank Waste Treatment - 10323 Stephen Agnew, Columbia Energy & Environmental Services, Inc. (USA)
- 9:50 Application of a Thin Film Evaporator System for Management of Liquid High Level Wastes at Hanford - 10170 Rick Tedeschi, Washington River Protection Solutions; Robert Wilson, Columbia Energy & Environmental Services, Inc. (USA)
- 10:20 Application of Membrane Technology to Minimize Liquid Waste from Reprocessing Plants - 10183 Yasutomi Morimoto, Takashi Kato, Mamoru Numata, Yasuhiro Suzuki, JGC Corporation

- (Japan); Sai Bhavaraju, Justin Pendleton, Shekar Balagopal, Ceramatec, Inc. (USA); Hiroshi Ishida, JGC Corporation (Japan)
- 10:45 Lithium Hydrotalcite Method for Alumina Removal from Hanford Waste - 10234 Donald Geniesse, AREVA Federal Services, LLC (USA)
- 11:10 Resorcinol-Formaldehyde Ion Exchange Resin Chemistry for High Level Waste Treatment - 10161 Charles Nash, Mark Duignan, Savannah River National Laboratory (USA)
- 11:35 Fluidized Bed Steam Reforming Technology
  Demonstration for Conversion of Savannah
  River Tank 48 Waste to a Granular
  Carbonate Product 10162
  Christina Payne, Brent Evans, J. Brad Mason,
  Arlin Olson, Kevin Ryan, Vishal Vora, THOR
  Treatment Technologies, LLC (USA)

#### Session 61

8:30 AM - 12:00 PM

Room 106 B

Performance of Disposal Systems, Facilities and Sites for LLW, ILW, MW, NORM and TENORM

**Co-Chairs: Robert Hiergesell**, Savannah River National Laboratory; **Martin Letourneau**, US DOE (USA)

Sponsor & Paper Reviewer: Robert Hiergesell Organizers: Robert Hiergesell, Martin Letourneau

- 8:35 Performance Assessment Community of Practice 10468

  Roger Seitz, Savannah River National Laboratory; David Kosson, Vanderbilt University; Martin Letourneau, US DOE (USA)
- 9:00 A Regulatory Perspective of Monitoring and Assessing Performance of Engineered Surface Barriers 10138

  Hans Arlt, US NRC (USA)
- 9:25 Projected Impact of Sulfate Attack on the Long-Term Performance of a Concrete Repository 10252

  Greg Flach, Savannah River National Laboratory (USA)
- 9:50 Probabilistic Durability Analysis of Cementitious Materials under Combined Sulfate Attack and Calcium Leaching -10149

Sankaran Mahadevan, Sohini Sarkar, David Kosson, Vanderbilt University; Vanderbilt University and CRESP; Kevin Brown, Vanderbilt University (USA); J.C.L. Meeussen, H. Van Der Sloot, Energy Research Centre of the Netherlands (The Netherlands)

- 10:20 Distribution and Range of Nine
  Radionuclide Sorption Coefficients in a
  Savannah River Site Aquifer: Stochastic
  Modeling Considerations 10259
  Daniel Kaplan, Savannah River National
  Laboratory; Kelly Grogan, Robert Fjeld, Timothy
  DeVol, John Coates, Clemson University; John
  Seaman, University of Georgia (USA)
- 10:45 Model Implementation to Evaluate the Collective Future Radionuclide Releases from Multiple Facilities at the Savannah River Site 10145

  Robert Hiergesell, Frank Smith, Luther Hamm, Mark Phifer, Robert Swingle, Savannah River National Laboratory (USA)
- 11:10 The Use of Collective Dose for Optimization of a Low-Level Waste Site Closure Cover 10158

**Greg Shott**, Vefa Yucel, National Security Technologies, LLC (USA)

11:35 The Influence of Future Human Behaviors in Performance Assessment - 10483 Ralph Perona, Paul Black, John Tauxe, Neptune and Company (USA)

#### Session 62

8:30 AM - 10:15 AM

**Room 106 A** 

Waste Optimization/Minimization During D&D

**Co-Chairs: Robert Woodard**, EnergySolutions (USA); **Maria Lindberg**, Studsvik UK Ltd (United Kingdom)

**Sponsor: Maria Lindberg** 

Organizers: Maria Lindberg, Jas Devgun Paper Reviewer: Robert Woodard

8:35 Characterization and Optimization of Quantitative Waste Volume Determination Technique for Hanford Waste Tank Closure - 10035

**David Monts**, Ping-Rey Jang, Zhiling Long, O. Perry Norton, Lawrence Gresham, Mississippi State University (USA)

9:00 Waste Management and Minimization During Decontamination And Decommissioning (D&D) Of The Pluto Disassembly Facility, Nevada Test Site, Nevada - 10340

> Mark Burmeister, NNES; **John Fowler**, Navarro Nevada Environmental Services Rebecca King, Douglas Frenette, National Security Technologies (USA);; Robert Boehlecke, Kevin Cabble, US DOE NNSA/NSO (USA)

9:25 The Development of an Integrated Waste Management Approach for Irradiated Graphite - 10131

> **Anthony Banford**, Prof Harry Eccles, Richard Jarvis, David N. Ross, National Nuclear Laboratory (United Kingdom)

9:50 Management and Status of Uranium Bearing Waste in Japan Atomic Energy Agency (JAEA) - 10303

> **Kazuhiko Sato**, Shinji Kawatsuma; Mami Horita, Toshihisa Sasaki; Tatsuo Saito, Yoshiaki Nakatsuka, Masaru Ohuchi, Shinichi Takebe, Japan Atomic Energy Agency (Japan)

#### Session 63

10:15 AM - 12:00 PM

Room 106 A

Transport of Radioactive Materials - Operational and Analysis Highlights

**Co-Chairs: Christopher Bajwa**, **Earl Easton**, *US NRC (USA)* 

**Sponsor: Larry Harmon** 

Organizers: Richard Yoshimura, Larry Harmon

Paper Reviewer: Christopher Bajwa

10:20 Final Campaign for the Packaging and Transportation of Depleted Uranium for Disposition from the Savannah River Site

- 10285

**Jeb Berg**, Cavanagh Services Group, Inc.; Dawn Gillas, US DOE / SR / AMNMSP (USA)

- 10:45 Transport of Mox Fuel: A Continuous Challenge - 10201 Bernard Louzeau, AREVA International (France)
- 11:10 The Potential and Beneficial Use of WeighIn-Motion (WIM) Systems Integrated with
  Radio Frequency Identification (RFID)
  Systems for Characterizing Disposal of
  Waste Debris to Optimize the Waste
  Shipping Process 10266
  Robert Abercrombie, Oak Ridge National
  Laboratory; Dooley Buckner, D. Dean Newton,
  Bechtel Jacobs Company, LLC (USA)
- 11:35 Simulation of Impact Limiter Crushing of RAM Packages Under 9m Drop Test Conditions 10090

**Martin Neumann**, Frank Wille, Linan Qiao, Viktor Ballheimer, Steffen Komann, BAM Federal Institute for Materials Research and Testing (Germany)

#### Session 64

8:30 AM - 12:00 PM

**Room 101 B** 

**Technical Innovations in Environmental Remediation and Site Closure** 

**Co-Chairs: Ed Alperin**, Shaw Environmental & Infrastructure Group; **Del Baird**, CDM (USA)

**Sponsor: Angie Jones** 

Organizers: Angie Jones, Del Baird

**Paper Reviewer: Ed Alperin** 

8:35 Challenges and Solutions Encountered during the Deployment of the Turn-Key CRATER™ System at the River Corridor Closure Project at the US DOE 's Hanford Site - 10384

**Edward Traverso**, Washington Closure Hanford; J Stewart Bland, Chesapeake Nuclear Services; Paul Steinmeyer, Radiation Safety Associates (USA)

- 9:00 A Viability Program for the Safety Systems
  Under the Savannah River Remediation
  Contract at the Savannah River Site 10440
  Bruce Wiersma, Savannah River National
  Laboratory; Matthew Maryak, Karthik
  Subramanian, Savannah River Remediation
  (USA)
- 9:25 Savannah River Site Tank 18/19 Wall Sampler Performance - 10368 Bruce Wiersma, Robert Leishear, Mark Fowley, Rick Minichan, Tim Steeper, Jerry Corbett, Savannah River National Laboratory; William Vetsch, ACTS, Inc.; Thomas France, Bruce Martin, George Thaxton, Savannah River Remediation, LLC; (USA)
- 9:50 Non-Intrusive Characterization of the 618-10 and 618-11 Burial Grounds at the Hanford Site, Washington - 10343 Darrin Faulk, Nelson Little, Washington Closure Hanford (USA)
- 10:20 Reactant Carrier Microfoam Technology for In-Situ Remediation of Radionuclide and Metallic Contaminants in Deep Vadose Zone

- 10159

**Shas Mattigod**, Lirong Zhong, Dawn Wellman, Danielle Jansik, Pacific Northwest National Laboratory; Martin Foote, Andrea Hart, MSE Technology Applications, Inc; (USA);

10:45 Scale-Up Testing — Foam as a Remedial Amendment Carrier - 10040 Martin Foote, MSE Technology Applications, Inc; Dawn Wellman, Lirong Zhong, Shas Mattigod, Pacific Northwest National Laboratory; Andrea Hart, (USA)

11:10 Identifying and Remediating Submunitions at the Tonopah Test Range (American Reinvestment and Recovery Act Funded) - 10327

Mark Krauss, Stoller-Navarro; Kevin Cabble, US DOE - NNSA/NSO (USA)

# Session 65

8:30 AM - 12:00 PM

**Room 101 C** 

**Groundwater Environmental Remediation Projects** 

**Co-Chairs: John Morse**, *US DOE*; **Moses Jaraysi**, *CH2M HILL Plateau Remediation Company (USA)* 

Sponsor: Linda Lehman Organizers: Moses Jaraysi

Paper Reviewer: John Kristofzski

- 8:35 Systematic Application of Flow-and-Transport Modeling for Wellfield Design: The Hanford 200-ZP-1 Groundwater Pumpand-Treat Remedy - 10320 Matthew Tonkin, Marinko Karanovic, S.S. Papadopulos & Associates, Inc; Mark Byrnes, CH2M HILL Plateau Remediation Company; John Morse, US DOE; Christopher Murray, Pacific Northwest National Laboratory; Paul Clement, CH2M Hill, Inc. (USA)
- 9:00 Mitigation of the Contaminated
  Groundwater Plume at the West Valley
  Demonstration Project, New York, USA
   10409
  Lettie Chilson, Linda Michalczak, John
  Chamberlain, Cynthia Dayton, West Valley
  Environmental Services, LLC; Mark Bellis, US
  DOE; Richard Frappa, AMEC Geomatrix (USA)
- 9:25 Meeting Challenges to Optimize Ground Water Remediation as Part of the Moab Uranium Mill Tailings Remedial Action Project - 10481 Joe Ritchey, Moab TAC Team; Donald Metzler, Liz Glowiak, US DOE; Ken Pill, Pro2Serve (USA)
- 9:50 Results from Recent Science and Technology Investigations Targeting Chromium in the 100-D Area, Hanford Site, Washington, USA 10287

  Scott Petersen, CH2M HILL Plateau Remediation Company; John Morse, Michael Thompson, US DOE; Matthew Tonkin, S. S. Papadopulos & Associates, Inc. (USA)
- 10:20 Modeling Transport in the Down Gradient Portion of the 200-PO-1 Operable Unit at the Hanford Site - 10165 Sunil Mehta, Alaa Aly, Amena Mayenna, INTERA; Charles Miller, CH2M HILL Plateau Remediation Company (USA)
- 10:45 Application of Remedial Process
  Optimization for Chromium Remediation at
  the Hanford Site, Washington, USA 9277
   10286

Jeffrey Riddelle, Tom Simpkin, CH2M HILL Plateau Remediation Company; Matthew Tonkin, S. S. Papadopulos & Associates, Inc.; James Hanson, US DOE (USA)

11:10 The Underground Test Area (UGTA) Sub-Project of the Nevada Test Site: Building Confidence in Groundwater Flow and Transport Models at Pahute Mesa through Focused Characterization Studies - 10337 Gayle Pawloski, Lawrence Livermore National Laboratory; Sig Drellack, National Security Technologies, LLC; Jeff Wurtz, Navarro Nevada Environmental Services (USA) 11:35 The Move Towards Green and Sustainable Remediation – Implications for Soil and Groundwater Remediation - 10218 Tom Simpkin, Paul Favara, CH2M HILL Plateau Remediation Company (USA)

#### Session 66

8:30 AM - 10:15 AM

**Room 105 C** 

Reaching Out To Communities - International Experiences

**Co-Chairs: Linda Ulland**, *University of MN Central Regional Partnership*; **Heather Klebba**, *Nuclear Filter* 

Technology (USA)

**Sponsor: Connie Callan** 

Organizers: Leonel Lagos, Heather Klebba

Paper Reviewer: Linda Ulland

8:35 Communicating on Nuclear Waste: Feedback of the Visiatome Experience - 10524 Cedric Garnier, CEA Marcoule (France)

9:00 Public Outreach in the Post Closure Stage:
The Fernald Preserve and Weldon Spring
Experience - 10354
Jane Powell, US DOE Office of Legacy
Management; Sue Walpole, Yvonne Deyo, S. M.
Stoller Corporation (USA)

9:25 Pride-effect in a Nuclear Community: Local Perceptions Regarding Spent Nuclear Fuel Repository in the Municipality of Eurajoki, Finland - 10192 Matti Kojo, University of Tampere; Mika Kari, University of Jyväskylä (Finland)

9:50 Tangible Results of Nuclear Information Centre Ljubljana - 10306 Igor Jencic, Jozef Stefan Institute (Slovenia)

# Session 67

10:15 AM - 12:00 PM

Room 105 C

**Building a Nuclear Workforce for the 21st Century** 

**Co-Chairs: Leonel Lagos**, Florida International University (USA); **John Dalton**, NDA (UK)

**Sponsor: John Dalton** 

Organizers: Heather Klebba, Leonel Lagos

Paper Reviewer: Heather Klebba

10:20 Closing the Nuclear Skills Gap in the United Kingdom Consultancy Sector - 10432 David Whitmore, Atkins Limited; Jean Llewellyn, National Skills Academy Nuclear; Clive Smith, Cogent SSC Limited (UK) 10:45 US DOE-Florida International University
Science and Technology Workforce
Development Program - 10200
Leonel Lagos, Florida International University
(USA)

11:10 The Cost of a Sustainable Energy Future
- 10494

James Conca, New Mexico State University; Judith Wright, UFA Ventures (USA)

#### **Poster Session 68**

8:30 AM - 12:30 PM

**1st Floor Fover** 

Crosscutting & General Policies Posters - A D&D Posters B-D Packaging & Transportation Posters F-G

<u>Topic A: Crosscutting & General Policies,</u> <u>Programs and Technologies</u>

Co-Chairs: Donald Wood, GaeaTech Services; David Wallace, CDM (USA)

Sponsor: Christopher Timm
Paper Reviewer: David Wallace

A1. Hanford Site Welding Program, Successfully Providing a Single Site Function for Use by Multiple Contractors - 10042

Gary Cannell, Fluor Government Group/ CH2M

Hill Plateau Remediation Company; Charles Kronvall, CH2M HILL Plateau Remediation Company; Terry Ostrander, Mission Support Alliance (USA)

A2. Managing in the Face of Complexity: A Small Business Perspective on Living Up to and Delivering on Prime Contractor Expectations at Hanford - 10171

**Kristine Kuhl-Klinger**, Jou Hwang, Robin Loeffler, Eric Wyse, Advanced Technologies and Laboratories International, Inc. (USA)

#### **Topic B: General D&D Topics**

**Co-Chairs: Mark Lesinski**, Magnox South Ltd (United Kingdom); **David Monts**, Mississippi State University (USA)

**Sponsor: Rick Demmer** 

**Paper Reviewer: David Monts** 

- **B1.** Minimization of Hydroboric Acid Containing Decontamination Solutions 10198 *Risto Koivula*, Risto Harjula, University of Helsinki (Finland)
- B2. D&D Toolbox Project Florida International University Technology Demonstration of a Whirling Nozzle for Fixative Application in Hot Cell Interiors 10430

  Peggy Shoffner, Leonel Lagos, Mario Vargas,

Florida International University (USA)

# <u>Topic C: Planning & Information Management in D&D</u>

**Co-Chairs: Robert Zelmer**, Atomic Energy of Canada Limited (Canada); **Julia Tripp**, Idaho National Laboratory (USA)

**Sponsor & Paper Reviewer: Julia Tripp** 

C1. US DOE Facility Deactivation & Decommissioning (D&D) Program Map - 10233

**Charles Urland**, Michelle Gresalfi, Project Enhancement Corporation; Andrew Szilagyi, Yvette Collazo, US DOE (USA)

C2. Environmental Cost Analysis System Data Formulation - 10288 Peter Sanford, Consultant; M.A. Moe, US DOE; T.J. Brennan, US DOE; and W.G. Hombach, Team Analysis, Inc. (USA)

C3. Cost Estimating System Development for Decommissioning Nuclear Power Plants - Lessons Learned from Korean Cost Estimate Project - 10196

Sun Kee Lee, Jae Yeol An, Yong Kyu Lim, Hyundai Engineering Company (Korea)

#### **Topic D: Characterization in the D&D Process**

**Co-Chairs: Peter Brennecke**, Federal Office for Radiation Protection (Germany); **Jas Devgun**, Sargent & Lundy, LLC (USA)

Sponsor: Albert Freitag Paper Reviewer: Julia Tripp

D1. Innovation at the UK's National Nuclear Laboratory: Development of the HiRAD Technology - 10377

Chris Holmes, **Steven Stanley**, National Nuclear Laboratory; Peter Jackson, Tom Partington, Tracerco Ltd; Clare Booth, Sellafield Ltd (United Kingdom)

D2. The Multimodal Approach for Remote Search and Visualization of Highly Active Sources of Radiations - 10407

**Viktor Volkov**, Vyacheslav Stepanov, Oleg Ivanov, Sergey Smirnov, Anatoly Volkovich, Alexey Danilovich, Russian Research Center Kurchatov Institute (Russia)

D3. Development of Site-Specific Shielding Factors for Use in Radiological Risk Assessments - 10112 Cynthia Barr, Duane Schmidt, Sami Sherbini, US NRC (USA)

# **Topic E: Status & Progress in D&D Activities**

**Co-Chairs: Rick Demmer**, *Idaho National Laboratory*; **Russell Mellor**, *URS Washington Division (USA)* 

**Sponsor: Rick Demmer** 

Paper Reviewer: J. Rick Dearholt

E1. The D4 Process and the 100-N Area D4
Project at the Hanford Site, Washington, USA
- 10369

Robert Cathel, **Terry King**, Washington Closure Hanford (USA)

- E2. Progress Achieved in the Decommissioning of the Process Building of the Karlsruhe Reprocessing Plant 10121

  Werner Dander, Werner Lutz, Hubert Praxl, WAK GmbH (Germany)
- E3. Remotely-Controlled Mobile Manipulator for Use in Radioactive Environments 10262
  Gary Doebler, PAR Systems, Inc. (USA)\*
  Please note that this poster presentation will be presented in Session 81, as A22 due to a presenter time conflict.

# Topic F: International Package Design & Testing

Co-Chairs: Paul Jones, DeNuke Services, Inc. (USA);

Olaf Oldiges, GNS mbH (Germany)

**Sponsor: Paul Jones** 

Paper Reviewer: Larry Harmon

F1. Disposal Container Safety Assessment - Drop Tests with a 'Yoyushindo-Disposal' Waste Container onto a Concrete Target - 10038 Thomas Quercetti, Bernhard Droste, Andre Musolff, Karsten Müller, BAM Federal Institute for Materials Research and Testing (Germany); Seiji Komatsuki, Motonori Nakagami, Chubu Electric Power Company; Kyosuke Fujisawa, Kobe Steel, Ltd. (Japan)

F2. Disposal Container Safety Assessment - The

- Comprehensive Performance Evaluation of a 'Yoyusindo-Disposal' Waste Container by Drop Test 10087

  Kyosuke Fujisawa, Takashi Nishio, Kojiro Fuji, Kobe Steel, Ltd. (Japan); Motonori Nakagami, Seiji Komatsuki, Chubu Electric Power Company (Japan); Andre Musolff, Karsten Müller, Thomas Quercetti, BAM Federal Institute for Materials Research and Testing (Germany)
- F3. Mechanical/Thermal Package Design Safety
  Assessment and Manufacturing Quality
  Assurance of Spent Fuel Transport Cask NCS
  45 10187
  Christian Kuschke, Tino Neumeyer, Frank Wille,

**Christian Kuschke**, Tino Neumeyer, Frank Wille, Bernhard Droste, BAM Federal Institute for Materials Research and Testing (Germany)

F4. New Romanian Qualification Testing Facility for Type A, B and C Packages to be Used for Transport and Storage of Dangerous Goods - Class #7 Radioactive Materials - 10333 Gheorghe Vieru, Institute for Nuclear Research (Romania)

# <u>Topic G: Crosscutting, Policies, Programs &</u> <u>Technologies in Packaging & Transportation</u>

**Co-Chairs: Jeb Berg**, *Cavanagh Services Group, Inc.*; **Christopher Brandjes**, *Argonne National Laboratory (USA)* 

Sponsor: Olaf Oldiges Paper Reviewer: Paul Jones

G1. Intermodal Movable Hard Lid Safety - Linde Formerly Utilized Sites Remedial Action Program (FUSRAP) Remediation Project - 10421

**Joseph McGowan**, Shaw Environmental & Infrastructure; James Boyle, US ACE (USA)

G2. Russian Federation Radioactive Waste
Transportation Management Safe Practice
and Prospective Operations Plans - 10195
Alexander Gelbutovsky, Peter Cheremisin, Ilja
Grinev, Alexander Troshev, ECOMET-S (Russia)

#### Session 69

1:30 PM - 5:00 PM

Room 102 B

Panel/Oral: Developments in the American Recovery and Reinvestment Act (ARRA)

Co-Chairs: Jim Janis, The Janis Group, Inc.; Cathy

Hickey, URS Corporation (USA)

**Sponsor: Cathy Hickey** 

Organizers: Cathy Hickey, Susan Stiger

Panel Reporter: Susan Stiger

This combined Panel and Paper Session will focus on the ARRA lessons learned after one year of implementation. Perspectives from both government and industry officials will be given on funds distribution, contracting mechanisms, accomplishments and future activities. This session will also address the potential forthcoming significant financial incentives for nuclear (including WM) in the current Climate Energy Bills (e.g. Subtitle C, Sections 132, 133 of the "Clean Energy, Jobs, & American Power Act"). This session compliments Panels 53 and 54 which focus on US DOE and Contractor's Procurement and Contracting activities. All WM2010 Exhibitors are invited to attend.

Panelists: Jim Janis, The Janis Group; Gerald Boyd, Oak Ridge Office Manager, US DOE; Nithin Akuthota, Executive Director, Energy, Technology, and Environmental Business Association (ETEBA); and J. Frank Armijo, Vice President, Energy & Environmental Services, Lockheed Martin Corporation; and John Mocknick, US DOE EM.

There will also be four papers presented in the second half of the session, as shown.

- 3:20 Development of the 2012 Accelerated Cleanup Plan - 10146 Jay Rhoderick, Michelle Primack, US DOE; David Meredith, Project Enhancement Corporation (USA)
- 3:45 American Recovery and Reinvestment Act Challenges and Successes for Environmental Management Intergovernmental and Stakeholder Relations - 10103 Kristen Ellis, US DOE (USA)
- 4:10 The Positive Impacts of American Reinvestment and Recovery Act (ARRA) Funding to the Waste Management Program on Hanford's Plateau Remediation Project

L. Ty Blackford, CH2M HILL Plateau Remediation Company; **Don Moak**, Perma-Fix Environmental Services, Inc.; Lori West, Materials and Energy Corporation, CHPRC Solid Waste Processing Project (USA)

4:35 Impacts of the American Recovery and Reinvestment Act on the Ongoing Cleanup of the Idaho National Laboratory - 10457 Erin Bognar, Allen Schubert, CH2M-WG Idaho, LLC (USA)

#### Session 70

1:30 PM - 5:00 PM

Room 105 AB

Panel: Partnerships with the IAEA Network of Centres of Excellence in ER – ENVIRONET

Co-Chairs: Horst Monken Fernandes, Melanie Wong, International Atomic Energy Agency (Austria)

**Sponsor: Donald Goebel** 

Organizer: Horst Monken Fernandes Panel Reporter: Horst Monken Fernandes

This session will focus on the partnership opportunities with IAEA ENVIRONET. This session is the third in a series of sessions organized by IAEA on the international Environet Network. Discussion will include ER clean-up opportunities, member roles, and participants.

- 1. The Brazilian Experience on Environmental Remediation of Uranium Mining Sites - Alessandra Barreto, Indústrias Nucleares do Brasil (Brazil)
- 2. Decommissioning and Remediation of the Chernobyl Nuclear Power Plant Cooling Pond Oleg Voitsekhovych, Ukrainian Hydrometeorological Institute (Ukraine)
- 3. Environmental Remediation Challenges in the Russian Federation Sergey Mikheykin, FSUE "RosRAO" (Russia)

# <u>Topic G: Crosscutting, Policies, Programs &</u> <u>Technologies in Packaging & Transportation</u>

**Co-Chairs: Jeb Berg**, *Cavanagh Services Group, Inc.*; **Christopher Brandjes**, *Argonne National Laboratory (USA)* 

Sponsor: Olaf Oldiges Paper Reviewer: Paul Jones

**G1.** Intermodal Movable Hard Lid Safety - Linde Formerly Utilized Sites Remedial Action Program (FUSRAP) Remediation Project - 10421

**Joseph McGowan**, Shaw Environmental & Infrastructure; James Boyle, US ACE (USA)

G2. Russian Federation Radioactive Waste
Transportation Management Safe Practice
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Alexander Gelbutovsky, Peter Cheremisin, Ilja
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#### Session 69

1:30 PM - 5:00 PM

Room 102 B

Panel/Oral: Developments in the American Recovery and Reinvestment Act (ARRA)

Co-Chairs: Jim Janis, The Janis Group, Inc.; Cathy

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**Sponsor: Cathy Hickey** 

Organizers: Cathy Hickey, Susan Stiger

Panel Reporter: Susan Stiger

This combined Panel and Paper Session will focus on the ARRA lessons learned after one year of implementation. Perspectives from both government and industry officials will be given on funds distribution, contracting mechanisms, accomplishments and future activities. This session will also address the potential forthcoming significant financial incentives for nuclear (including WM) in the current Climate Energy Bills (e.g. Subtitle C, Sections 132, 133 of the "Clean Energy, Jobs, & American Power Act"). This session compliments Panels 53 and 54 which focus on US DOE and Contractor's Procurement and Contracting activities. All WM2010 Exhibitors are invited to attend.

Panelists: Jim Janis, The Janis Group; Gerald Boyd, Oak Ridge Office Manager, US DOE; Nithin Akuthota, Executive Director, Energy, Technology, and Environmental Business Association (ETEBA); and J. Frank Armijo, Vice President, Energy & Environmental Services, Lockheed Martin Corporation; and John Mocknick, US DOE EM.

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#### Session 70

1:30 PM - 5:00 PM

Room 105 AB

Panel: Partnerships with the IAEA Network of Centres of Excellence in ER – ENVIRONET

**Co-Chairs: Horst Monken Fernandes, Melanie Wong**, International Atomic Energy Agency (Austria)

**Sponsor: Donald Goebel** 

Organizer: Horst Monken Fernandes Panel Reporter: Horst Monken Fernandes

This session will focus on the partnership opportunities with IAEA ENVIRONET. This session is the third in a series of sessions organized by IAEA on the international Environet Network. Discussion will include ER clean-up opportunities, member roles, and participants.

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- 2. Decommissioning and Remediation of the Chernobyl Nuclear Power Plant Cooling Pond Oleg Voitsekhovych, Ukrainian Hydrometeorological Institute (Ukraine)
- 3. Environmental Remediation Challenges in the Russian Federation Sergey Mikheykin, FSUE "RosRAO" (Russia)

- 4. Remediation Projects in South Africa Elna Fourie, South African Atomic Energy Commission (NECSA) (South Africa)
- 5. Remediation Strategy of a Phosphogypsum Stack in an Urban Area in Sfax, Tunisia - Latifa Ben Omrane, Azza Hammou, CNRP, Hôpital d'Enfants; Faouzi Ben Amor, Geo Environment; Riadh Hentati, Ramzi Halouani, SEACNVS (Tunisia)
- 6. Remediation of NORM contaminated Sites in Syria Lina Al Atar, Atomic Energy Commission of Syria (Syria)
- 7. The IAEA Ongoing Activities in Supporting Environmental Remediation Projects in Central Asian Russell Edge, IAEA (Austria); Oleg Voitsekhovych, Ukrainian Hydrometeorological Institute (Ukraine)
- 8. Radioactive Waste Management Policy & Strategy in Iraq -10299- Fuoad Al-Musawi, Emad S. Shamsaldin, Talib K. Ibrahim, Adnan S. Jarjies, Ministry of Science & Technology (Iraq)

1:30 PM - 5:00 PM

Room 103 AB

#### **D&D** of Nuclear Power Plants

Co-Chairs: Ted Gado, Burns & Roe (USA); Anthony Banford, National Nuclear Laboratory

(United Kingdom)

Sponsor: Jas Devgun

Organizers: Albert Freitag, Anthony Banford

**Paper Reviewer: Anthony Banford** 

WAK GmbH (Germany)

1:35 Decommissioning and Dismantling of
Prototype Reactors and Fuel Cycle Facilities
at the German Karlsruhe Site – Progress and
New Challenges - 10088
Joachim Fleisch, Juergen Minges, Beata
Eisenmann, Manfred Urban, Anja Graf-Frank,
Erwin Prechtl, Joachim Dux & Wolfgang Pfiefer

2:00 Cutting Reactor Pressure Vessels and Their Internals – Trends on Selected Technologies - 10247

**Robert Henderson**, Ludger Eickelpasch, NUKEM Technologies GmbH (Germany)

- 2:25 EDF Radioactive Graphite Inventories Based on Hundreds of Measurements are Casting Doubt on "A Priori" Accepted Ideas 10414 Bernard Poncet, EDF-CIDEN (France)
- 2:50 Modular Construction for Eventual Deconstruction and Decommissioning - 10300

Jas Devgun, Sargent & Lundy, LLC (USA)

- 3:20 Decommissioning Sellafield's First Fuel Storage Pond - 10070 Derek Carlisle, Sellafield Ltd (United Kingdom)
- 3:45 The Application of Simulation Modelling in Nuclear Decommissioning 10405

  Sean McCann, Richard Thompson, Sellafield Ltd (United Kingdom)
- **4:10 Decommissioning and Cutting Methods in** the Nuclear Field - 10059 *Erik Bensoussan*, Protem SAS (France)

#### Session 72

1:30 PM - 5:00 PM

Room 104 AB

Innovative Field Monitoring for Environmental Remediation

Co-Chairs: Russell Boyd, The Shaw Group; David

Wallace, CDM (USA)
Sponsor: David Eaton

Organizers: Donna Guillen, Jim Yeh Paper Reviewer: Russell Boyd

1:35 Some Recent Technology Developments from the UK's National Nuclear Laboratory to Enable Hazard Characterisation for Nuclear Decommissioning Applications - 10317

Steven Stanley, Chris Holmes, National Nuclear Laboratory (United Kingdom); Eduardo Farfan, Trevor Foley, Savannah River National Laboratory; Mark Oldham, Duke University Medical Center (USA); Trevor York, Peter Green, University of Manchester; Peter Jackson, Tracerco Ltd (United Kingdom)

- 2:00 Use of the Advanced Trident Probe to
  Investigate Upwelling Groundwater in the
  Columbia River Hanford Reach 10558
  Jeff Lerch, Washington Closure Hanford; Brett
  Tiller, Environmental Assessment Services; Ron
  Paulsen, Coastal Monitoring Associates, LLC
  (USA)
- 2:25 Enhanced Effective Detection of Buried Radioactive Waste - 10177 Qian Du, Wei Wei, Nicolas Younan, Charles Waggoner, Donna Rogers, Zhongyuan Huang, Mississippi State University (USA)
- 2:50 Innovative, Non-Intrusive Passive Soil Gas Collection Device Maps Large Carbon Tetrachloride Plume at the DOE Hanford Site, Washington - 10501 Harry O'Neill, Joe Odencrantz, Beacon Environmental Services, Inc.; Wes Bratton, Ken Moser, Vista Engineering Technologies (USA)
- 3:20 Passive Electrical Measurements for Long-Term Performance Monitoring - 10034 Carlyle Miller, Mindy McCarthy, MSE Technology Applications, Inc. (USA)

3:45 In-Situ Assay of Transuranic Radionuclides in the Vadose Zone using High-Resolution Spectral Gamma Logging – A Hanford Case Study - 10438

**Paul Henwood**, Rick McCain, S.M. Stoller Corporation; Virginia Rohay, CH2M HILL Plateau Remediation Company (USA)

- 4:10 Use of Fly-Over Surveys in Making Environmental Decisions - 10339 Harold Anagnostopoulos, Stoller-Navarro (USA)
- 4:35 Real-Time and Continuous Remote Radiological Monitoring System in the Strait of Gibraltar: (REMUS project) - 10292 Rachid El Mrabet, Nabil Dehbi, Tahar El Khoukhi, National Center for Energy, Sciences and Nuclear Techniques (Morocco); Gregory Delecaut, JeanPierre Lacroix, Institut National des Radioéléments (Belgium)

#### Session 73

1:30 PM - 5:00 PM

Room 106 C

### Vitrification Experience and Glass Characterization for HLW

**Co-Chairs: Ned Bibler**, Savannah River National Laboratory (USA); **Michael Ojovan**, University of Sheffield (United Kingdom)

Sponsor & Paper Reviewer: Ned Bibler Organizers: Ned Bibler, Terri Fellinger, Christian Ladirat

- 1:35 Vitrification Assistance Program:
   International Cooperation on Vitrification
   Technology (PART II) 10157
   Anthony Prod'homme, AREVA Federal
   Services, LLC (USA); David Marsden, Nick
   Skillen, Bryan McGowan, Stephen Scott, Brian
   Garth, Sellafield Ltd (United Kingdom); Eric
   Guillois, Stephane Sartelet, Henri Noel Guerif,
   AREVA NC; Jean Francois Hollebecque, CEA;
   Thierry Flament, Fabrice Pereira Mendes, Julien
   Lauzel, SGN (France)
- 2:00 New Developments in Advanced
  Stabilization Technologies including the
  Advanced Microwave System and Modular
  Vitrification System 10279 10279
  Mark Denton, Kurion, Inc. (USA)
- 2:25 Radioactive Start-up of the German VEK
  Vitrification Plant 10089
  Martin Weishaupt, Joachim Fleisch, Wolfgang
  Pfeifer, WAK GmbH; Wolfgang Gruenewald,
  Forschungszentrum Karlsruhe; Guenther Roth,
  Winfried Tobie, Siegfried Weisenburger, FZK
  GmbH (Germany)

2:50 Qualification of In-Can Melting Process
Applied to Vitrification of High Activity
Waste Solutions (HAWS) at the CEA's
Valduc Center: Description of Process and
Equipment, Methodology and Initial Results
- 10022

Philippe Gruber, Stéphane Lemonnier, Isabelle Hugon, Yann Papin, Alain Ledoux, J. Lacombe, Jean-Luc Dussossoy, CEA Marcoule; Laurent Pescayre, Béatrice Batifol, CEA Valduc (France)

3:20 Vitrification 2010 - A Challenging French Vitrification Project to Retrofit a Cold Crucible Inductive Melter at the La Hague Plant - 10382

> **Sandrine Naline**, Vincent Robineau, Frédéric Gouyaud, AREVA NC; Christophe Girold, CEA Marcoule; Benoit Carpentier, SGN Equeurdreville (France)

3:45 Vitrification of a Representative Simulant of DWPF SB4-Type Waste in CCIM – Industrial Scale Demonstration on the CEA Marcoule Platform - 10063

Milene Delaunay, Alain Ledoux, Jean-Luc Dussossoy, Patrice Boussier, J. Lacombe, Christophe Girold, CEA Marcoule; Catherine Veyer, Consultant (France); Eric Tchemitcheff, AREVA Federal Services, LLC (USA)

4:10 High Aluminum HLW Glasses for Hanford's WTP - 10241

Innocent Joseph, **Bradley Bowan**, EnergySolutions; Hao Gan, Wing K. Kot, Keith Matlack, Ian Pegg, Catholic University of America; Albert Kruger, US DOE - ORP (USA)

4:35 Tests of Simultaneous Melt Rate and Waste Loading Enhancements for DWPF HLW Streams - 10254

**Bradley Bowan**, Innocent Joseph, EnergySolutions; Keith Matlack, Hao Gan, Wing K. Kot, Ian Pegg, Catholic University of America (USA)

# Session 74

1:30 PM - 5:00 PM

Room 106 B

Operational Challenges in Mixing Technologies Related to Waste Retrieval

Co-Chairs: Bernard Vigreux, French Nuclear Energy Society (France); Harry Harmon, Senior Consultant (USA)

**Sponsor: Bernard Vigreux** 

Organizers: Bernard Vigreux, Harry Harmon

Paper Reviewer: Remi Bera

1:35 Savannah River Site Saltcake Retrieval Simulation - 10109

**Larry Pearson**, Rebecca Toghiani, Jeff Lindner, Mississippi State University (USA)

2:00 The Retrieval Knowledge Center Evaluation of Low Tank Level Mixing Technologies for DOE High Level Waste Tank Retrieval - 10516

**Andrew Fellinger**, Rick Minichan, Savannah River National Laboratory (USA)

2:25 Operational Challenges in Mixing and Transfer of High Yield Stress Sludge Waste - 10263

> **Thomas Caldwell**, Pankaj Bhatt, Savannah River Remediation, LLC (USA)

- 2:50 High-Level Waste Feed Certification in Hanford Double-Shell Tanks - 10083 Mike Thien, Washington River Protection Solutions; Duane Adamson, Savannah River National Laboratory; Beric Wells, Pacific Northwest National Laboratory (USA)
- 3:20 Storage, Mobilization and Retrieval of High Yield Strength Sludges from United Kingdom Legacy Spent Fuel Storage Facilities - 10225 Martin Williams, NuVision Engineering, Inc. (USA); Paul Stewart, Sellafield Ltd (United Kingdom)
- 3:45 Impact of Rheological Modifiers on Various Slurries Supporting US DOE Waste Processing 10099

**Jaehun Chun**, Paul Bredt, Pacific Northwest National Laboratory; Erich Hansen, Savannah River National Laboratory; Prasad Bhosale, John Berg, University of Washington (USA)

- 4:10 Modeling of Leaching Filter Pressure Drop and Fouling Behavior - 10477 David Rector, Mark Stewart, Pacific Northwest National Laboratory (USA)
- 4:35 Test Facilities for the Demonstration of Pulse Jet Mixer Performance in the Hanford Waste Treatment Plant 10275

  Paul Townson, EnergySolutions; Peter Omel, Bechtel National, Inc. (USA)

### Session 75

1:30 PM - 3:15 PM

Room 106 A

Performance of Disposal Systems, Facilities and Sites for LLW, ILW, MW, NORM and TENORM

**Co-Chairs: Robert Hiergesell**, Savannah River National Laboratory; **Martin Letourneau**, US DOE (USA)

Sponsor & Paper Reviewer: Robert Hiergesell Organizers: Robert Hiergesell, Martin Letourneau

1:35 A Risk-Based Evaluation of Lined Verses
Unlined Disposal Cells for Future Low Level
Radioactive Waste Disposal Sites - 10437
Joseph Rustick, James Clarke, Vanderbilt
University; Martin Letourneau, US DOE (USA)

- 2:00 The Impact of Mineral Deposition by
  Carbonation and Dissolution on Leaching of
  Constituents from a Cement Mortar 10312
  Joshua Arnold, Andrew Garrabrants, David
  Kosson, Vanderbilt University (USA); JCL
  Meeussen, H Van Der Sloot, Energy Research
  Centre of the Netherlands (The Netherlands)
- 2:25 Water Balance Model for a Generic Near-Surface Disposal Facility - 10029 Andras Paksy, Ed Henderson, Simon Kwong, National Nuclear Laboratory (United Kingdom)
- 2:50 Large Scale Test of the Long Term Engineered Cap at El Cabril LLW Disposal Facility in Spain – 10069Mariano Navarro, Manuel Ordoñez, Pablo Zuloaga, ENRESA (Spain)

#### Session 76

3:15 PM - 5:00 PM

Room 106 A

Emerging Treatment Technologies for LLW, ILW, Mixed Waste, NORM and TENORM

**Co-Chairs: Paul Macbeth**, *US DOE (USA)*; **Heinz Kroeger**, *TÜV NORD EnSys Hannover (Germany)* 

**Sponsor: Paul Macbeth** 

Organizers: Paul Macbeth, Erich Tiepel Paper Reviewer: Heinz Kroeger

3:20 Technology Needs for Developing the Next Generation of US DOE Landfills/Disposal Areas - 10013 Vince Adams, Dinesh Gupta, US DOE; Craig Benson, University of Washington; John Smegal, Legin Group, Inc. (USA)

- 3:45 Solidification Testing for a High Activity
  Wastestream from the Savannah River Site
  using Grout and Gamma Radiation Shielding
  Materials 10017
  Jody Bickford, Martin Foote, MSE Technology
  Applications, Inc; Heather Burns, Savannah River
  Nuclear Solutions (USA)
- 4:10 Thermal Treatment of UK Intermediate and Low Level Radioactive Waste: A Demonstration of the GeoMelt Process towards Treatment of Sellafield Waste 10507

**Keith Witwer**, Eric Dysland, Impact Services, Inc., GeoMelt Division (USA); Mike James, Chris Mounsey, Sellafield Ltd. (United Kingdom)

4:35 US DOE's Initiatives for Proliferation Prevention in Russia: Results of Radioactive Liquid Waste Treatment Project, Year 1 - 10031

**Dennis Kelley**, Pacific Nuclear Solutions (USA); Vladislav Kamachev, Yury Pokhitonov, Khlopin Radium Institute (Russia)

1:30 PM - 5:00 PM

Room 105 C

**New Generation of Uranium Recovery Facilities** 

Co-Chairs: Steven Brown, SHB Inc.; Erich Tiepel,

Golder Associates, Inc (USA)

**Sponsor & Paper Reviewer: Steven Brown** 

**Organizers: Erich Tiepel** 

1:35 The Coles Hill Uranium Project and Virginia Uranium Inc. – History and Critical Path Forward for Development - 10520 Patrick Wales, Virginia Uranium, Inc. (USA)

2:00 Current Status of US Nuclear Regulatory Commission's Uranium Recovery Activities - 10418

Larry Camper, Daniel Gillen, US NRC (USA)

2:25 The Piñon Ridge Project - Design and Permitting of a New Uranium Mill Tailings Facility - 10512

Kimberly Morrison, Golder Associates Inc.;

Steven Brown, SHB Inc.; Frank Filas, Energy Fuels Resources (USA)

- 2:50 Radiological Aspects of U.S. Uranium In Situ Recovery Facilities (An Update) and Some Current Health Physics Issues 10505 Steven Brown, SHB Inc. (USA)
- 3:20 Parallel Universes High-Density GPS-Based Gamma Radiation Mapping: Technology for Initial Licensing Through Final Remedial Action at Uranium and TENORM Sites - 10510

Robert Meyer, Tetra Tech Inc. (USA)

3:45 Northern Mine Decommissioning - Case Study of Remedial Works for Closure of Port Radium, Canada's Original Uranium Mine - 10397

**Gerd Wiatzka**, SENES Consultants Ltd.; Charles F. Gravelle, Decommissioning Consulting Services Limited (Canada)

4:10 Changes to the US Nuclear Regulatory
Commission Regulation of Construction for
Nuclear Materials Licensees – Assessment
of Environmental Impacts and Implications
for Applicants - 10245

**A. Christianne Ridge**, Andrea Kock, US NRC (USA)

**4:35** Issues in Developing a New Uranium Mine in Canada - 10579

**Grant Feasby**, Doug Chambers, SENES Consultants Ltd. (Canada)

Session 78

1:30 PM - 3:15 PM

**Room 101 B** 

Treatment of Nuclear Power Plant Liquid and Wet Waste

**Co-Chairs: Olaf Oldiges**, GNS mbH (Germany); **C. Clint Miller**, Pacific Gas & Electric (USA)

**Sponsor: Mark Lewis** 

Organizers: Olaf Oldiges, Mark Lewis

Paper Reviewer: C. Clint Miller

1:35 Improvement of Water Purification Plant in SIA "Radon" - 10189

Alexander Savkin, Yury Karlin, Victor Flit, Alexander Ermakov, **Dmitry Adamovich**, SIA Radon (Russia)

- 2:00 Radioactive Spent Ion-Exchange Resins
  Conditioning by the Hot Supercompaction
  Process at Tihange NPP 10043
  Serge Vanderperre, Baudouin Centner, David
  Charpentier, Tractebel Engineering GDF SUEZ
  (Belgium)
- 2:25 Transfer and Fixation of Radionuclides by Nanosized Latexes Containing Polyacrylic Acid - 10387

**Svetlana Bratskaya**, Valentin Avramenko, Veniamin Zheleznov, Andrey Egorin, Institute of Chemistry FEDRAS (Russia); Tatiana Markovtseva, Chernobyl NPP (Ukraine); Risto Harjula, University of Helsinki (Finland)

2:50 A New Drying Facility For LL and IL Waste in a Special Designed Building - 10534 Olaf Oldiges, Ingmar Koischwitz, GNS mbH (Germany)

#### Session 79

3:15 PM - 5:00 PM

**Room 101 B** 

Management of Nuclear Power Plant Dry Waste and Spent Fuel

Co-Chairs: Wolfgang Steinwarz, Siempelkamp Nukleartechnik GmbH (Germany); Mark Lewis, EnergySolutions (USA) Sponsor, Organizer & Paper Reviewer: Wolfgang Steinwarz

- 3:20 Dry Cask Storage Pacific Gas & Electric Humboldt Bay Power Plant 10217

  E. Don Strassman, Larry Pulley, Tawni Hardwick, Pacific Gas & Electric (USA)
- 3:45 Handling of HLW Flasks in German NPP Safety Aspects 10062

**Ernst Prucker**, Karl-Heinz Lehmann, Tuev Sueddeutschland; Herbert Lang, Bavarian Ministry of Environment and Health (Germany)

- 4:10 Regulatory Change in LLW Disposal: Why Something Should be Done - 10540 Thomas Kalinowski, David James, DW James Consulting, LLC; Phung Tran, EPRI (USA)
- 4:35 Development of Spent Nuclear Fuel
  Management System in Korea 10544
  Dong Keun Cho, Heu-Joo Choi, Jong Won Choi,
  J.Y Lee and D.H. Kook Korea Atomic Energy
  Research Institute (Korea)

1:30 PM - 5:00 PM

**Room 101 C** 

### Packaging and Transportation - Doing It Right!

Co-Chairs: Ella McNeil, US DOE;

Daniel Jordan, Enercon Services, Inc. (USA)

Sponsor: Larry Harmon Organizers: Ella McNeil Paper Reviewer: Mike Nolan

- 1:35 Commercial Viability of Mixed Oxide Fuel
  Transport in the United States 10060
  Frederick Yapuncich, Dorothy Davidson, Remi
  Bera, AREVA Federal Services, LLC (USA);
  Michael Valenzano, Transnuclear, Inc. (USA)
- 2:00 Incorporating Radio Frequency
  Identification (RFID) Technology at Bechtel
  Jacobs to Optimize On-Site Waste Shipping
  Processes 10227
  Michael West, Alfreda Cook, Dooley Buckner, D.
  Dean Newton, Don Scheve, Bechtel Jacobs
  Company, LLC; Eddie Holden, US DOE (USA)
- 2:25 Next Generation Waste Tracking: Linking Legacy Systems with Modern Networking Technologies - 10064 Randy Walker, Cyrus Smith, David Resseguie, Arjun Shankar, Bryan Gorman, David Hill, Robert Abercrombie, Frederick Sheldon, Oak Ridge National Laboratory (USA)
- 2:50 Moab Uranium Mill Tailings Remedial Action Project - Packaging and Transportation Operations and Challenges - 10238 Jim Portsmouth, EnergySolutions; Joel Berwick, US DOE; Lawrence M. Brede, EnergySolutions (USA)
- 3:20 Global Threat Reduction Initiative Efforts to Address Transportation Challenges Associated with the Recovery of Disused Radioactive Sealed Sources - 10283 Abigail Cuthbertson, US DOE NNSA; Julia Whitworth, Justin M. Griffin, Michael Pearson, Jim Matzke, Los Alamos National Laboratory; Richard Rawl, Paul Singley, Oak Ridge National Laboratory; Cristy Abeyta, Los Alamos National Lab / OSRP (USA)

3:45 Addressing Concerns about the Denial of International Shipment of Radioactive Sources - 10357 Grant Malkoske, ISSPA; Paul Gray, MDS Nordion (Canada); John Miller, International Isotopes, Inc. (USA)

- 4:10 What it Takes to Make a Federal Shipment, USA - 10538 Dotty DeFreest, EnergySolutions; Terri Kneitel, DOE - BHSO (USA)
- 4:35 Investigation of Drugstore Beetles and Their Effects within Radioactive Material Shipping Packages - 10458 Jeffrey England, Bradley Loftin, Savannah River

**Jeffrey England,** Bradley Loftin, Savannah River National Laboratory; James Shuler, US DOE (USA)

#### **Poster Session 81**

1:30 PM - 5:00 PM

1st Floor Foyer

# Non-Paper Poster Session for Emerging Issues -A

**Co-Chairs: Gary Benda**, Cavanagh Services Group, Inc.; **Linda Lehman**, CH2M HILL Plateau Remediation Company (USA)

Sponsor: Gary Benda

- A1. Considerations for Method Selection for Isotopic Uranium Analysis 10242

  Terry Romanko, TestAmerica Laboratories, Inc. (USA)
- A2. Haiti, Victim of the Import of the Waste Under Cover of False Label in 1988, Promotes the Communication to inform the Basis Organizations Specially the Most Vulnerable Groups 10297

  Pierre Richard Jouissance, Jojostahr.inc (Haiti)
- A3. Remote Radon Monitoring; a Systems
  Integration Approach 10385
  Greg McCurdy, Jeffrey Tappen, Lynn Karr,
  David Shafer, Desert Research Institute;
  Alan Hinckley, Campbell Scientific, Inc.
  (USA)
- A4. How Nuclear Waste Management
  Professionals Can Better Communicate
  the "Essentials of Hazardous Materials
  Management" to the General Public
   10066
  Richard Cartwright, MECX, LP (USA)
- A5. ANS Decommissioning,
  Decontamination & Reutilization
  Division (DD&R): Our Mission 10562
  Lisa Mullen, ANS DD&R Division (USA)

- A6. Applied Geophysical Methods in the 200-PO-1 Groundwater Operable Unit at the Hanford Site 10307
  G. D. Cummins, Jeffrey Riddelle, CH2M HILL Plateau Remediation Company; Michael D. Thompson, MDT Associates; Steven F. Miller, Advanced GeoSolutions, Inc. (USA)
- A7. Creating and Using an Aspen Custom Model (ACM) Based Simulator called Aspen Process Performance Simulation (APPS) for the Waste Treatment and Immobilization Plant (WTP) 10566

  Kimberly Clossey, Navpreet Brar, Matthew Gebhardt, Patrick Lowery, Bechtel National, Inc. (WTP) (USA)
- A8. Interactive Mapping and Remote Data
  Collection Aids Management of US DOE
  Sites 10426
  Elaine Pilz, Josh Troyer, S.M. Stoller
  Corporation; Richard Bush, US DOE (USA)
- A9. La Hague Continuous Improvement
  Program to go Beyond the Current High
  Level of Equipment Availability of the
  Vitrification Facility: Development of a
  New Bearing Technology 10130
  Eric Chauvin, Edouard Minayo, AREVA NC;
  Fabrice Pereira Mendes, Arnaud Mercier,
  SGN (France)
- **A10.** Aluminum Solubility 10264 *Laura Smith*, Jeff Lindner, Rebecca Toghiani, Yunju Xia, Valerie Phillips, Mississippi State University (USA)
- A11. Avoiding a Collision of Aging Workforce and Future Staffing Needs 10169
  Lloyd Keith, Washington River Protection
  Solutions; Gerald Eaton, EnergX LLC (USA)
- A12. Hydration of the French SON68 Glass: A
  Kinetic Study and Corrosion Products
  Investigation 10028
  Abdesselam Abdelouas, Jim Neeway,
  Bernd Grambow, Ecole De Mines De Nantes
  (France); Satoshi Utsunomiya, Masashi
  Kogawa, Kyushu University (Japan)
- A13. Accomplishments of the Integrated Management Program for Radioactive Sealed Sources in Egypt 10469

  John Cochran, Jeffrey Danneels, Sandia National Laboratories (USA); Yasser Mohamed, Egyptian Atomic Energy Authority (Egypt)
- A14 D&D of Nuclear Research Reactor in
  Down Town of Moscow City (RF)
   10584
  Viktor Volkov, Sergey Semenov, RSC
  "Kurchatov Institute"; Alexander
  Chesnokov, Russian Research Center;
  Arthur Arustamov, Konstantin Semenov,
  Denis Fedorov, SUE SIA Radon (Russia)

- A15. Advancements in Three-Dimensional Resistivity Imaging of Subsurface Contamination Plumes Within Single-Shell Tank Waste Management Areas at the Hanford Site 10147

  Marc Levitt, Dale Rucker,
  hydroGEOPHYSICS, Inc. (USA); David Myers, Washington River Protection Solutions; Colin Henderson, Columbia Environmental and Engineering Services (USA)
- A16. Modernization of the LRW and Salt Residue Treatment System at Kola NPP (RF) 10580

  Denis Fedorov, Alexander Savkin, Arthur Arustamov, Sergey Dmitriev, SIA Radon (Russia)
- A17. Heap Leaching: A New Approach to Uranium Mining Waste Utilization
   10577
  Erik Hunter, Colorado School of Mines
  (USA)
- A18. Decommissioning of the UF6 Sphere of the CEA Uranium enrichment plant in Pierrelatte (France) 10571
  Didier Métral, ONECTRA; Philippe Gros
  Gean, ONET Technologies (France)
- A19. Success Factors for Siting Programmes for Geological Disposal 10570

  Bill Miller, AMEC Nuclear UK (United Kingdom)
- A20. Developing Complex Regulatory
  Documents Using Internet-Based
  Technology 10226
  Russell Patterson, US DOE; Art Chavez,
  URS Corporation (USA)
- A21. The Development of the Model 9979
  Type AF Packaging, a Low-Cost
  Packaging for Radioactive Material
  Waste 10603
  Paul Blanton, Savannah River National
  Laboratory, Savannah River Nuclear
  Solutions (USA)
- A22. Remotely-Controlled Mobile

  Manipulator for Use in Radioactive
  Environments 10262

  Gary Doebler, PAR Systems, Inc. (USA)\*
- A23. An Radiofrequency Identification (RFID) Based System for Tracking and Monitoring Nuclear Materials 10378

  Yung Liu, Hanchung Tsai, Kun Chen, Ron Pope, ANL; James Shuler, US DOE (USA)

### March 11, Thursday AM

Session 82

8:30 AM - 10:30 AM

**Room 102 B** 

Panel: New Power Plant Designs - the Nuclear Renaissance

Co-Chairs: John Bradburne, Janis Bradburne Executive Recruiting; James Gallagher, Gallagher Consulting (USA)

**Sponsor & Panel Reporter: John Bradburne** Organizers: John Bradburne, James Gallagher

This panel will focus on the Nuclear Renaissance and the activities being performed to meet the industry needs. Key panelists will include US NRC and industry executives discussing the actions and events in managing the renaissance. Discussion will include 1) an introduction and overview 2) the history and intent of the NRC Part 52 rule making/codification and related international programs 3) how it is really working with the first US combined Construction Permit/Operating License (CP/OL) applications filed and 4) a discussion on the present and future of plant orders. WM2010 Exhibitors are encouraged to attend this panel.

Panelists: Stephen Burns, General Counsel, US NRC: **Bob Evans**. Vice President, Enercon Utility Services; Edward Helminski, President, Exchange Monitor Publications, Inc.; and James L. Little, Senior Vice President, Nuclear Energy Program, URS Power Group.

Session 83

8:30 AM - 12:00 PM

Room 103 AB

**Panel: US Federal Government Contract** "Capture" Workshop

**Chair: Vik Mani**, Mani Strategic Solutions, LLC (USA) Sponsor, Organizer & Panel Reporter: Vik Mani

This workshop focuses on the targeting, planning, pursuing and winning a contract, generally known as the "CAPTURE" effort. Companies and the government alike spend millions of dollars on CAPTURE efforts. Companies rise or fall by the contracts won or lost. Pursuing contracts without success can cripple a companies' growth. Needless to say good contracts and contractors lead to good work and economic benefits. This workshop will provide professionals with a better understanding of the tactical and strategic management processes involved in the overall effort of "CAPTURE".

Panelists: Gerald Boyd, DOE ORO; Ralph Holland, DOE EMCBC; Mike Howard, DOE EM (HQ); Jim Janis, The Janis Group; Dennis Ferrigno, CAF &

Associates; John Longenecker, Longenecker & Associates; and Robert D. Allan, Allan Consulting.

Session 84

8:30 AM - 12:00 PM

**Room 101 B** 

**Innovative Liquid and Gas Crosscutting Filtration Systems in the Nuclear Industry** 

**Co-Chairs: Charles Waggoner**, *Mississippi State* University (USA); Chris Chadwick, Microfiltrex (United Kingdom)

**Sponsor: David Eaton** 

**Organizers: Charles Waggoner, Chris Chadwick** 

Paper Reviewer: Charles Waggoner

- 1. **Extensive Characterization of Novel Classes of Inorganic Ion Specific Media Designed for Highly Selective Removal of** Salient Liquid Waste Radionuclides: Cs, **Sr, Ni and Tc** - 10251 Gaetan Bonhomme, Mark Denton, Kurion, Inc.; William Bostick, Materials and Chemistry Laboratory, Inc. (USA)
- Evaluating the Performance of ASME AG-2. **1 Section FK Radial Flow Filters** - 10015 Michael Parsons, Charles Waggoner, Rangaswami Arunkumar, Mississippi State University (USA)
- 3. **Development of a High Performance HEPA Filter to Withstand High Temperature and High Pressure** Transients - 10569 Chris Chadwick, Microfiltrex (United Kingdom)

Following the three initial presentations, there will be a panel discussion narrated by the Co-Chairs. Topics that will be presented and discussed will include the followina:

- 1. NNSA Updating of the DOE 1066 Fire **Protection Standard**
- 2. Novel Condensate Tolerant, High Strength **HEPA Media.**
- 3. UK Experiences In The Use Of Radial Flow **HEPA Filters In Nuclear Containment.**

8:30 AM - 12:00 PM

**Room 101 C** 

Communicating Information and Issues: Tribal Involvement, Public Participation and Modern Technology

**Co-Chairs: Jan Lewis**, *The Shaw Environmental, Inc.*; **Margaret MacDonell**, *Argonne National Laboratory* (USA)

Sponsor & Paper Reviewer: Margaret MacDonell Organizers: Michelle Rhodes, John Lowe, R. Douglas Hildebrand

- 8:35 Tweeting Our Way to Transparency: The Challenge of Social Media in Government 10274

  Tyler Whitney, Carrie Meyer, Erik Olds, US DOE ORP (USA)
- 9:00 Honoring the US DOE's Commitment to the American Indian Tribal Government Policy through Tribal Input to the Disposal of Greater Than-Class-C Low-Level Radioactive Waste Environmental Impact Statement 10205

  Arnold Edelman, Albert Brandt Petrasek, US DOE EM; Richard Arnold, Nevada Test Site (USA)
- 9:25 Tools for Environmental Assessment of Contaminated Sites: Understanding Tribal and Stakeholder Concerns using US DOE Sites as Case Studies - 10106 Joanna Burger, Rutgers University; Charles Powers, Vanderbilt University; Michael Gochfeld, CRESP (USA)
- 9:50 Independent Oversight of Radioactive
  Waste Management Influence on the Past
   Benefit for the Future 10143
  Christopher Timm, Jerry Fox, PECOS
  Management Services, Inc (USA)
- 10:20 Nuclear Communications Transparent, Open and Often - 10447 Eliot Brenner, Rebecca Schmidt, US NRC (USA)
- 10:45 The Benefits and Opportunities of Implementing US DOE's Public Participation Policy by Working with Intergovernmental and Stakeholder Groups 10044

  David Borak, US DOE EM (USA)
- 11:10 An Update on Stakeholder Participation in the Environmental Cleanup of Radioactive Wastes in the United Kingdom, Japan and United States 10390

  Bill Lawless, Fjorentina Angjellari-Dajci, Paine College; Christian Poppeliers, Augusta State University, Dept. of Physics (USA); Mito Akiyoshi, Senshu University (Japan); John Whitton, Nexia Solutions (United Kingdom)

11:35 Preservation Versus Demolition – The Fate of the Historic K-25 Gaseous Diffusion Plant - 10492

**Susan Gawarecki**, ORR Local Oversight Committee; William Wilcox, Oak Ridge Heritage and Preservation Association (USA)

#### Session 86

8:30 AM - 10:15 AM

Room 106 C

TRU Small Quantity Sites - Plans for Utilizing the Consolidation Option at Idaho National Laboratory (INL)

Co-Chairs: Betty Humphrey, Weston Solutions, Inc.; Sheila Lott, Los Alamos National Laboratory (USA) Sponsor: Roger Nelson

Organizers: Betty Humphrey, Sheila Lott Paper Reviewer: Betty Humphrey

- 8:35 A Snapshot in Time The TRUplanner Database - 10400 Wesley Estill, Gregory Van Soest, Beverly Crawford, Los Alamos National Laboratory (USA)
- 9:00 Project Plans for Transuranic Waste at Small Quantity Sites in the Department of Energy Complex 10522 Jerri McTaggart, Sheila Lott, Los Alamos National Laboratory; Casey Gadbury, US DOE (USA)
- 9:25 Nevada Test Site (NTS)Transuranic (TRU)
  Waste Project Lessons Learned 10324
  Patrick Arnold, CH2M HILL National Security
  Technologies (NSTec); Frank Disanza, US DOE
  NNSA NSO; John Ciucci, Duane Snyder, Rick
  Wagner NSTec (USA)
- 9:50 Sandia National Laboratories RH
  Repackaging Efforts 10490
  Michael Spoerner, Sandia National
  Laboratories; Betty Humphrey, Weston Solutions,
  Inc. (USA)

#### Session 87

8:30 AM - 10:30 PM

Room 106 B

Waste Characterization - Non-Instrumental Solutions

**Co-Chairs: Frazier Bronson**, Canberra Industries Inc - AREVA Group (USA); **Heinz Kroeger**, TÜV NORD EnSys Hannover (Germany)

Sponsor & Paper Reviewer: Heinz Kroeger Organizers: Lance Mezga, Frazier Bronson

8:35 Solid Waste Management: Bringing Best Practices to Los Alamos National Laboratory - 10422

Alison M. Dorries, Scotty Miller, Debora Hall, Los Alamos National Laboratory (USA)

9:00 Optimized Planning of the Disposal of Radioactive Waste Packages Exceeding the German Waste Acceptance Criteria Limits for Fissile Material Content and for Heat Generation - 10450

Peter Brennecke, Stefan Steyer, Federal Office for Radiation Protection; Sonja Margraf, Walter Hackel, RD Hanau GmbH; Gabriele Bandt, **Heinz Kroeger**, TÜV NORD EnSys Hannover (Germany)

- 9:25 Description of Non-Radioactive Substances in Radioactive Wastes - 10406 Elke Kaffka, Rudi Gaschler, Energiewerke Nord GmbH; Peter Brennecke, Federal Office for Radiation Protection; Detlef Gründler, Institute for Safety Technology; Claudia Haider, ISTEC GmbH (Germany)
- 9:50 Development of Advanced Waste
  Management Software to Enhance
  Operating Efficiency and Reduce Life-Cycle
  Cost at the Oak Ridge National Laboratory,
  Oak Ridge, Tennessee, USA 10058
  Timothy Forrester, Gerald Cunningham, John
  Powell, Nevada Williford, Oak Ridge National
  Laboratory; Ron Branch, Strata-G (USA)
- 10:20 Off-Site Source Recovery Project Case Study: Disposal of High Activity Cobalt 60 Sources at the Nevada Test Site 2008 - 10509

**William Stewart**, Frank Cocina, Los Alamos National Laboratory - OSRP (USA); Mark Wald-Hopkins, Los Alamos National Laboratory; John Hageman, Southwest Research Institute (USA)

#### Session 88

8:30 AM - 12:00 PM

Room 106 A

Panel: Waste Management Energy Facilities Contractor Operating Group (EFCOG)

Co-Chairs: William Morrison, EnergySolutions; W.T. (Sonny) Goldston, Savannah River Nuclear Solutions (USA)

Sponsor: W.T. (Sonny) Goldston

Organizers: W.T. (Sonny) Goldston, William

(Billy) Morrison

**Panel Reporter: Nancy Rothermich** 

This panel will focus on the WM EFCOG and will meet to discuss a variety of issues of importance to US DOE waste management operations.

The purpose of the WM EFCOG is to seek out and promote the best management and operating practices, cost effective technologies and disposal options for all waste streams generated at US DOE facilities whether destined for DOE or commercial facilities.

The WM Task Group will be focused on complex wide integration and technology transfer while supporting cost effective and efficient waste options. This will be achieved in a way that enhances complex wide communication and maintains a priority on safety, environmental stewardship and security.

All interested parties are welcome to attend. Presentations and panel discussion will include the following:

- 1. Welcome And Introduction Review Of Last Years Work And Accomplishments -Billy Morrison, Chair EFCOG WM Working Group, EnergySolutions
- 2. 2010 Focus Areas Sonny Goldston, Vice Chairman EFCOG WM Working Group, Savannah River Nuclear Solutions
- 3. DOE HQ Update, LLW Cooperative Board, ARRA Update - Christine Gelles, LLW Corporate Board, US DOE-HQ
- 4. DOE Order 435.1 Radioactive Waste Management Update and Complex Wide Review - Marty Letourneau, US DOE HQ EM

Each Site Representative Will Later Provide an ARRA and Radioactive Waste Management Lessons Learned Briefing.

Panelists: Billy Morrison, Chair EFCOG WM Working Group, EnergySolutions, Sonny Goldston, Vice Chairman EFCOG, Savannah River Nuclear Solutions; Christine Gelles, LLW Corporate Board, US DOE-HQ; and Martin Letouneau, US DOE HQ EM

#### Session 89

8:30 AM - 12:00 PM

Room 104 AB

Panel: The IAEA Network on Environmental Management and Remediation – ENVIRONET -Bringing Regulatory Language and Operational Challenges Together

**Co-Chairs: Horst Monken Fernandes**, *IAEA* (Austria); Michelle Rehmann, *IFSOUP* (USA)

**Sponsor: Donald Goebel** 

**Organizers: Donald Goebel, Horst Monken** 

Fernandes

**Panel Reporter: Stephanie Long** 

This panel will focus on the WM2010 series of IAEA sessions presented during the week and will be the closing panel on ENVIRONET. The panel will address the overall assessment and the establishment of a positive partnership in Environmental Remediation. Presentations and panel discussion will include the following:

# **Thursday AM**

- Establishing a Positive Partnership Agenda in Environmental Remediation – Horst Monken Fernandes, IAEA (Austria)
- 2. IAEA Initiative to Support the Establishment of Regulatory Framework in Member States Russell Edge, IAEA (Austria)
- 3. International Policies and Strategies for the Remediation of Land Contaminated by Radioactive Material Residues Abel Gonzalez, Argentine Nuclear Regulatory Authority (Argentina)
- 4. Regulatory Supervision of Legacy Sites in Central Asia – Malgorzata Sneve, Norwegian Radiation Protection Authority, Department for Emergency Preparedness and Environmental Radioactivity (Norway)
- 1. Advice on the US DOE Cleanup Technology Roadmap – John Wiley, National Research Council of the US National Academies (USA)

Panelists: Horst Monken Fernandes, Russell Edge, IAEA (Austria); Abel Gonzalez, Argentine Nuclear Regulatory Commission (Argentina); Malgorzata Sneve, Norwegian Radiation Protection Authority (Norway); and John Wiley, the National Research Council of the US National Academies (USA)

Subject to change onsite, please check the Errata sheet and signage for daily updates.

# **Conference Proceedings**

The conference technical program proceedings are included with a full technical registration. Following the conclusion of the Conference, approximately June 2010, attendees will be mailed a CD-Rom of the Conference Proceedings to the address listed on their registration materials.

For additional copies or for those attendees who are not full technical registrants, Conference Proceedings may be purchased for \$105 each.

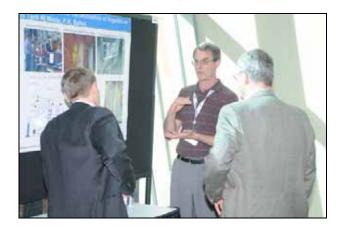
Also, proceedings for previous conference, the years 2002 – 2009, are available for \$105 each. Please stop by the Registration Desk for an order form.

Proceeding Archives are also available online at <a href="https://www.wmsym.org">www.wmsym.org</a> for the previous years 2001 – 2008. The website is one year behind the conference, WM2009 proceedings will be posted online once the WM2010 proceedings are mailed.

# **NOTES**

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### **Poster Sessions**



Be sure to schedule time to view the posters on display. In this informal atmosphere, Poster Presenters become discussion leaders sharing their ideas and visions. Each technical track presents a poster session; see the session descriptions for more information.

The WM2010 posters will be displayed for approximately 3-1/2 hours but the authors are scheduled to be at the booths for only two 30-minute periods. The posters will be arranged coinciding with the revised poster paper order in the Final Program.

In order to honor high quality presentations at WM2010, the Fuel Cycle and Waste Management Division of the American Nuclear Society (ANS) presents an award for the Best Poster Paper in addition to the Best Oral Presentation and the American Society of Mechanical Engineers (ASME) provides an award for the runner-up.

Judges select the paper based on technical quality and poster preparation of the work as described in the guidelines. Each track also selects a best poster. The Best and Second Best in the conference are presented to the recipients at the next WM conference. All Posters with papers are automatically eligible for the "Best Poster Award". Attendee forms for judging posters will be available on the first level.

### **Poster Presenter Attendance**

Session #		Poster Period	Attendees First Period	Attendees Second Period	Poster Setup	Poster Removal		
MONDAY, MARCH 8, 2010								
		1:30 -				5 pm-		
Afternoon	23	5:00 pm	1:30 – 2 pm	4:30 – 5 pm	1 – 1:30 pm	5:30 pm		
TUESDAY, MARCH 9, 2010								
		8:30 am -		11:30 am -		12 pm –		
Morning	38	12 pm	8:30 - 9 am	12 pm	8 - 8:30 am	12:30 pm		
		1:30 -				5 pm -		
Afternoon	52	5:00 pm	1:30 - 2 pm	4:30 – 5 pm	1 - 1:30 pm	5:30 pm		
WEDNESDAY, MARCH 10, 2010								
		8:30 am -				12:30 pm -		
Morning	68	12:30 pm	8:30 - 9 am	12 pm - 12:30 pm	8 - 8:30 am	1 pm		
		1:30 pm -				5 pm -		
Afternoon	81	5 pm	1:30 - 2 pm	4:30 pm - 5 pm	1 - 1:30 pm	5:30 pm		

### **Student Posters Competition – Session 24**

### The Next Generation – Industry Leaders of Tomorrow

Be sure to visit the Student Posters display on Monday afternoon in the Exhibit Hall and vote for your selection for Best Poster Winner. The winning student poster will be presented with \$500 cash at the Tuesday Honors and Awards Luncheon. Student Poster Presenters are offered free registration and housing at the WM2010 Conference, hosted by the Roy G. Post Foundation and WM Symposia.

For more information on the Roy G. Post Foundation, please go to www.roygpost.org.

Session in Bold followed by the Paper Number

Bamberger, Judith - 23A-10487

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Subject to change, please see signage and the Errata sheet onsite for current updates at the conference.

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Located on the lower level of the Phoenix Convention Center's West Building, the comprehensive technical exhibit showcases all aspects of products and services related to the nuclear waste industry. Areas of interest include protective clothing, remote/robotic handling, hazardous waste storage, transportation, diagnostic instrumentation, engineering design and construction, environmental laboratories, decontamination and decommissioning, and environmental remediation.

Attendees to the conference are typically decision makers of large worldwide corporations and government procurement agencies. For more information on exhibiting at WM2011, please contact WM Symposia at <a href="mailto:exhibits@wmarizona.org">exhibits@wmarizona.org</a> or by phone at 520-696-0399.

### **Exhibit Hours**

Sunday, March 7, 2010	5:00 PM - 8:00 PM	(Opening Welcome Reception)
Monday, March 8, 2010	9:30 AM - 6:00 PM	(International Reception 4:30 pm – 6 pm)
Tuesday, March 9, 2010	9:30 AM - 6:00 PM	(Best of Arizona Reception 4:30 pm - 6 pm)
Wednesday, March 10, 2010	9:30 AM - 1:30 PM	(Luncheon sponsored by The Shaw Group and
		individual booth prize drawings 12:00 pm – 1:30 pm)

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MACTEC 321 Major Tool & Machine Inc. 236 Mandall BarrierWorks/ArmorWorks 332 Mega-Tech Services, LLC 1015

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- 200 National Nuclear Laboratory (UK)
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- 315 IMPACT Services, Inc.
- 321 MACTEC
- 325 American Radiation Services, Inc.
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- 505 Nukeworker.com
- 506 Spectra Tech, Inc.
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- 517 AttentionIT, Inc.
- 518 Science Applications International Corp.
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- 521 Environmental Management Services
- 522 ENERCON
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- 525 UltraTech International, Inc.
- 528 General Plastics Manufacturing Company
- 529 Burns and Roe
- 530 Strata-G
- 532 S.A. Technology
- 533 E.H. Wachs
- 534 Central Research Laboratories
- 535 Stäubli Corporation
- 537 Container Technologies Industries LLC
- 538 Pajarito Scientific Corporation
- 539 ANS/Radwaste Solutions/Nuclear News
- 600 Wheelift, A Doerfer Co. Technology
- 602 Dade Moeller & Associates
- 603 Hot Cell Services Corporation
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- 605 Ascendent LLC
- 606 Nuclear Plant Journal
- 607 ECC
- 608 Quality Inspection Services, Inc.
- 609 Dekker, Ltd
- 610 Netzsch Instruments North America, LLC
- 611 Diversified Metal Products, Inc.
- 614 The Shaw Group
- 615 CH2M HILL
- 617 Off-Site Recovery Project at LANL
- 618 Westinghouse Electric Company
- 619 Aker Solutions E&C Ltd
- 619 ODIM Numet Ltd.
- 622 Tetra Tech, Inc.
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- 628 North Wind, Inc.
- 629 Alliant
- 631 Alliance of Hazardous Materials Pros
- 632 Project Time & Cost, Inc.
- 633 Microfiltrex a div. of Porvair Filtration
- 637 Premier Technology, Inc.

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702 US Ecology

706 GEL Laboratories, LLC

708 GoldSim Technology Group, LLC

710 Longenecker & Associates, Inc.

711 UniTech Services Group, Inc.

712 NUCON International, Inc.

714 Golder Associates, Inc.

715 Vista Engineering Techonologies LLC

716 US DOE Office of Legacy Management

717 Cavanagh Services Group, Inc.

718 Underwater Construction Corporation

720 PacTec, Inc.

722 Weston Solutions, Inc.

723 Perma-Fix Environmental Services, Inc.

724 Teledyne Brown Engineering

728 US DOE NV Site Office

729 Tidewater-ChesNuc, Inc.

731 ICx Radiation

734 Container Products Corporation

735 RJR Engineering, PC

738 Radiation Safety & Control Services, Inc.

739 Garlock Helicoflex

810 WMG, Inc.

814 International Nuclear Services

828 Environmental Dimensions, inc. (EDi)

829 Petersen, Inc.

830 WorleyParson Polestar

834 Environmental Rail Solutions, Inc.

835 Mid Columbia Engineering Inc.

836 AMEC Earth & Environmental

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1023 Cabrera Services, Inc.

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1029 US DOE - Waste Isolation Pilot Plant

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1034 THOR Treatment Technologies

1035 Mobile Characterization Services, LLC

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### **Exhibit Hall Activities**

### Receptions

Sunday, March 7, 2010 – 5 to 8 pm Welcome Reception

Monday, March 8, 2010 – 4:30 to 6 pm International Welcome Reception

Tuesday, March 9, 2010 – 4:30 to 6 pm Best of Arizona Reception

### **Refreshment Breaks**

Monday, March 8 and Tuesday, March 9 9:30 am - 10 am and 2:30 to 3 pm

### Lunch

Wednesday, March 10, 2010 - 12 to 1:30 pm

## Fundraising Raffle for Roy G. Post Foundation

Be sure to purchase your raffle tickets for the Roy G. Post Foundation's Fundraising Raffle. The list of donated items includes Lunch for Four at the World Famous Arizona Biltmore Resort's Wright's restaurant; Dinner for Two at the Hyatt Regency Phoenix's Compass Room; a Golf Bag donated by Tetra Tech; a deluxe Gift Basket including a Two Night Stay at the Springhill Suites Phoenix; a black leather computer case donated by Longenecker & Associates; two golf outing goodie bags donated by Reef Industries and much more.



Raffle Tickets are just \$10 each or five for \$40 and are available at the Registration Desk.

### WM2010 Exhibitors in Alphabetical Order

### **ABW Technologies, Inc.**

Contact: Aimee Dura

Booth #: 424

6720 - 191st Place NE Arlington, WA 98223

P: 1-360-618-4400 F: 1-360-618-4444

Email: adura@abwtec.com Website: www.abwtec.com

ABW Technologies is a custom metal fabrication and machining company. Specializing in vessels, handling and support equipment, racks, and structural steel. Our NQA-1 program has been implemented for over twenty years, and we understand the term "verbatim compliance." ASME VIII Code Stamp holder and ASME III program.

### **AECOM**

Contact: William Hook

Booth #: 508

8005 Outer Circle Drive Brooks City-Base, TX 78235

P: 1-210-271-0925 F: 1-210-271-3061

Email: william.hook@aecom.com Website: www.aecom.com

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### **Aker Solutions E&C Ltd**

Contact: Andy Leigh

Booth #: 619

Phoenix House 3 Surtees Way Surtees Business Park, Stockton-on-Tees TS18 3HR United Kingdom

P: 44-0162-334000 F: 44-01642-334121

Email: andy.leigh@akersolutions.com Website: www.akersolutions.com

Aker Solutions is a leading global provider of engineering, project management and construction services, technology products and integrated solutions. With a 50 year history in the nuclear sector, Aker Solutions cover all aspects of the project and nuclear fuel lifecycle. In addition to major North

American power construction and high integrity manufacturing the company has a phenomenal nuclear clean-up track record and capability.

### **Alaron Corporation**

Contact: Scott Eckler

Booth #: 309

7378 W. Chester Road West Chester, OH 45069

P: 1-513-759-4303 F: 1-513-759-4302

Email: arteckler@cinci.rr.com Website: www.alaron-nuclear.com

Alaron Nuclear Services is a multi service provider to the nuclear industry including equipment storage, facility-space leasing, spent fuel cask maintenance and storage, waste processing, asset recovery, decontamination services, service level one coatings, welding services, transload (truck to rail), and refurbishment of both safety and non-safety related components (pumps, motors, equipment).

### **Alliance of Hazardous Materials Professionals**

Contact: Cedric Calhoun

Booth #: 631

9650 Rockville Pike Bethesda, MD 20814

P: 1-301-634-7430 F: 1-301-634-7431

Email: info@ahmpnet.org Website: www.ahmpnet.org

The Alliance of Hazardous Materials Professionals (AHMP), formerly the Academy of Certified Hazardous Materials Managers, Inc. (ACHMM) is a professional association with a membership of more than 4,000 of the nation's leading experts in environmental, health, safety and security management. AHMP is the only national organization devoted to the professional advancement of the hazardous materials management field.

### Alliant

Contact: Tabatha Hammond

Booth #: 629

320 N. Cedar Bluff Road, Suite 200

Knoxville, TN 37923

P: 1-865-769-0123 F: 1-865-769-0946

Email: thammond@alliantcorp.com Website: www.alliantcorp.com

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Contact: Jenice Gallegos

Booth #: 836

8519 Jefferson NE Albuquerque, NM 87113

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Email: jenice.gallegos@AMEC.com

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Contact: David Weber

Booth #: 503

531 Old Swede Road Douglassville, PA 19518

P: 1-610-385-6061 F: 1-610-385-3191 x273

Email: dweber@americancrane.com Website: www.americancrane.com

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### American DND, Inc.

Contact: Bill Schaab Booth #: 233

500th #: 233

PO Box 533

Grand Island, NY 14072-0553

P: 1-866-699-5515 F: 1-716-773-5515

Email: bschaab@americandnd.com
Website: www.AmericanDND.com

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### **American Radiation Services, Inc.**

Contact: Kimberly Brewer

Booth #: 325

2609 N. River Rd Port Allen, LA 70767

P: 1-225-381-2991 F: 1-225-381-2996

Email: kbrewer@amrad.com Website: www.amrad.com

American Radiation Services, Inc. is a Native American / Veteran Owned Certified Environmental Radiation company that offers Remediation Services, Laboratory Services, Mobile Laboratory Services, Radiation Technicians, Health Physicists, Field Technicians, Radiation Surveys, Project Management, Deactivation and Decommissioning and other environmental and laboratory testing services.

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Contact: Jeff Mosses

Booth #: 539

555 N. Kensington Avenue La Grange Park, IL 60526

P: 1-708-579-8225 F: 1-708-352-6464

Email: jmosses@ans.org Website: www.ans.org

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Contact: Walter Quintero

Booth #: 329

10555 W. Flager Street, EC 2100

Miami, FL 33174 P: 1-305-348-5012 Email: quinterw@fiu.edu Website: www.fiu.edu

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Email: tpattison@canberra.com Website: www.areva.com

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Email: rob@ascendentllc.com Website: www.ascendentllc.com

Ascendent, LLC is a premier provider of high-quality, hard to find professional and technical resources in the commercial & DOE sectors. Ascendent currently supports several large staff augmentation contracts, providing resources in engineering, design, safety, environmental, waste management and decommissioning.

### ATL International, Inc.

Contact: Wendy Robbins Booth #: 1122

1979 Snyder Street, MS T6-10

Richland, WA 99354

P: 1-509-373-5956 F: 1-509-373-4884

Email: wendy\_l\_robbins@rl.gov Website: www.atlintl.com

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### AttentionIT, Inc.

Contact: Jeanice Pratt

Booth #: 517

1704 Schaeffer Road Knoxville, TN 37932

P: 1-865-769-8888 F: 1-865-769-8931

Email: jeanice@attentionit.com Website: www.attentionit.com

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### **Babcock Services, Inc.**

Contact: Ted Holman

Booth #: 328

8113 W. Quinault Avenue Kennewick, WA 99336

P: 1-509-737-0812 F: 1-509-943-0767

Email: t1holman@msn.com

Babcock Services, Inc. (BSI) is a small business that provides high quality professional support services to the nuclear industry. BSI has an experienced team of professionals combined with subject matter experts for remediation work as well as refueling and maintenance outage support. BSI also performs on and off site decontamination, and with its affiliate IceSolv and teaming partner IMPACT Services can provide the transportation, decontamination and disposition of contaminated tools and equipment. We also provide Project Controls Services, Scheduling, Estimating, Work Package Planning and Operations support to large scale environmental remediation





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Contact: Lauri Riebow

Booth #: 230

103-B N. Bancroft Street Fairhope, AL 36532 P: 1-251-706-5390

Email: Lriebow@barnhartcrane.com Website: www.barnhartcrane.com

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Contact: Lauren Buckman

Booth #: 112

60 Industrial Park Road Plymouth, MA 02360

P: 1-508-591-1149 F: 1-508-591-1397 Email: lauren.buckman@bartlettinc.com

Website: www.bartlettinc.com

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Contact: Tony Marlow

Booth #: 223

1 Coral Bell Court Santa Fe, NM 87508

P: 1-505-699-8923 F: 1-480-287-8709

Email: tmarlow@brokkinc.com Website: www.brokkinc.com

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Contact: Sandra Giordano

Booth #: 529

800 Kinderkamack Road Oradell, NJ 7649

P: 1-201-986-4422 F: 1-201-986-4335

Email: sgiordano@roe.com Website: www.roe.com

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Contact: Shannan Ryll

Booth #: 1023

473 Silver Lane

East Hartford, CT 6118

P: 1-860-569-0095 F: 1-860-569-0277

Email: sryll@cabreraservices.com Website: www.cabreraservices.com

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Contact: Dave Kerpius

Booth #: 421

9850 Havana Street

Henderson, CO 80640-8443

P: 1-303-534-6376 F: 1-303-853-3377

Email: dkerpius@casttrans.com Website: www.casttrans.com

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Booth #: 717

180 South 300 West, Suite 290 Salt Lake City, UT 84101

P: 1-801-532-2272 F: 1-801-532-0155

Email: gbenda@cav-services.com Website: www.cav-services.com

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Contact: Keegan Gotto

Booth #: 232

1946 Young Street, Suite 288

Honolulu, HI 96826

P: 1-520-425-1326 F: 1-808-949-2209

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Contact: Rick Dearholt

Booth #: 409

800 Oak Ridge Turnpike Suite B200

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P: 1-865-712-9542 F: 1-865-481-3835

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Contact: Jens Nestingen

Booth #: 534

3965 Pepin Avenue Red Wing, MN 55125

P: 1-651-388-3565 F: 1-651-385-2109

Email: j.nestingen@centres.com Website: www.centres.com

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Contact: Jame Waugh

Booth #: 423

798 Highway 69A Quapaw, OK 74363

P: 1-918-673-2201 F: 1-918-673-2309

Email: jwaugh@ceradyne.com Website: www.ceradyne.com

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Contact: Ashley Rath Booth #: 615

9189 S. Jamacia Street Englewood, CO 80112

P: 1-720-286 2327 F: 1-720-286 9090

Email: ashley.rath@ch2m.com Website: www.ch2m.com

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Columbia Energy & Environmental Services, Inc.

Contact: Casey Devitt

Booth #: 331

1806 Terminal Drive Richland, WA 99354

P: 1-509-946-7111 F: 1-509-946-9365

Email: cees@columbia-energy.com Website: www.columbia-energy.com

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Contact: Walt Foutz Booth #: 502

9769 W. 119th Drive, Suite 31 Broomfield, CO 80021

P: 1-303-421-1511 F: 1-303-463-4833

Email: walt@commodore.com Website: www.commodore.com

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Contact: Mike Lewis Booth #: 734

112 North College Road Wilmington, NC 28406

P: 1-910-392-6100 F: 1-910-392-6778

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Contact: Scott Burchfield

Booth #: 537

375 Marcum Parkway Helenwood, TN 37755

P: 1-423-569-2800 F: 1-423-569-2806 Email: sales@containertechnologies.com Website: www.containertechnologies.com

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Contact: John Fomous

Booth #: 602

1835 Terminal Drive, Suite 200

Richland, WA 99354

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Contact: Mark Landry

Booth #: 609

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Contact: William Everett

Booth #: 433

219, ave Marechal Leclerc Sin le Noble, 59450 France

P: 33--327904334

Email: william.everett@ensm-douai.fr

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Email: danp@diversifiedmetal.com Website: www.diversifiedmetal.com

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Contact: Jim Mooney

Booth #: 837

2680 Westcott Blvd. Knoxville, TN 37932

P: 1-865-539-9000 x 111 F: 1-865-539-9001

Email: jmooney@dts9000.com Website: www.dts9000.com

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### **DW James Consulting, LLC**

Contact: David James

Booth #: 131

855 Village Center Drive, Suite 330

North Oaks, MN 55127

P: 1-651-4827556 F: 1-901-339-2070

Email: djames@dwjames.com Website: www.dwjames.com

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Contact: Fred Erskine

Booth #: 411

5426 Robin Hood Road Norfolk, VA 23513

P: 1-757-2337478 F: 1-757-2337491

Email: fred.erskine@dzatlantic.com Website: www.dzatlantic.com

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Booth #: 533

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Contact: Veronica Ybarra

Booth #: 405

7021 Pan American Freeway NE Albuquerque, NM 87109

P: 1-505-923-2575 F: 1-505-262-2698 Email: vybarra@eberlineservices.com Website: www.eberlineservices.com

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Contact: Madalyn Weber

Booth #: 607

1240 Bayshore Hwy. Burlingame, CA 94010

P: 1-650-347-1555 F: 1-650-347-5479

Email: mweber@ecc.net Website: www.ecc.net

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Contact: Keith Mahosky

Booth #: 522

4490 Old William Penn Highway

Murrysville, PA 15668

P: 1-724-733-8711 F: 1-724-733-4630

Email: kmahosky@enercon.com Website: www.enercon.com

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Booth #: 701

423 W. 300 S, Suite 200 Salt Lake City, UT 84101

P: 1-801-649-2194 F: 1-801-413-5684 Email: mwalker@energysolutions.com Website: www.energysolutions.com

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Contact: Valentina Klein

Booth #: 828

PO Box 6250

Albuquerque, NM 87107

P: 1-505-341-3578 F: 1-505-341-3579

Email: vsmith@edi-nm.com Website: www.edi-nm.com

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Contact: David Ardito

Booth #: 834

621 Shrewsbury Avenue, Suite 152

Shrewsbury, NJ 7702

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Email: dardito@envrail.com Website: www.envrail.com

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Contact: Jody Redeker

Booth #: 929

2300 Clarendon Blvd. Suite 1110 Arlington, VA 22201

P: 1-703-647-4345 F: 1-703-469-1593

Email: jody.redeker@fluor.com Website: http://www.fluor.com

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Contact: John (Trip) McGarity

Booth #: 330

PO Box 36098, 171 Grayson Road

Rock Hill, SC 29732

P: 1-803-366-5131 F: 1-803-366-2005

Email: trip@frhamsafety.com Website: www.frhamsafety.com

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Contact: Chad Thomas

Booth #: 739

404 Listowe Drive Folsom, CA 95630

P: 1-916-984-7631 F: 1-916-984-7631

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Contact: Bob Seyer Booth #: 706

9111 Cross Park Drive, Suite D200

Knoxville, TN 37934

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Email: bobseyer@mindspring.com

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Email: kwhite@golder.com Website: www.golder.com

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Contact: Ian Miller Booth #: 708

300 NE Gilman Blvd. Suite 100

Issaguah, WA 98027

P: 1-425-295-6985 F: 1-425-642-8073

Email: imiller@goldsim.com Website: www.goldsim.com

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Contact: Shane Johanson

Booth #: 403

9130 South State 223 Sandy, UT 84070

P: 1-801-676-1575 F: 1-801-676-1579 Email: sjohanson@greenfieldlogistics.com Website: www.greenfieldlogistics.com

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Contact: Zbigniew Tomalik

Booth #: 603

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Contact: Gus Chirgott

Booth #: 1019

192 Ohio River Blvd. Suite 100

Ambridge, PA 15003

P: 1-724-266-7580 F: 1-724-266-7583 Email: gchirgott@iceservicegroup.com Website: www.iceservicegroup.com

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Contact: Christine O'Brien

Booth #: 504

9700 S. Cass Avenue, DEP-223

Argonne, IL 60439

P: 1-630-252-9378 F: 1-630-252-3193

Email: cobrien@anl.gov Website: www.anl.gov

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Contact: Paul Talbot

Booth #: 337

856 East Utah Valley Drive American Fork, UT 84003

P: 1-801-763-8400 F: 1-801-763-8491

Email: ptalbot@ibcmrt.com Website: www.ibcmrt.com

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Contact: Jeffrey Perkins

Booth #: 731

100 Midland Road Oak Ridge, TN 37830

P: 1-865-220-8700 F: 1-865-220-7181

Email: jeffrey.perkins@icxt.com

Website: www.icxt.com

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Contact: Judith Byrd

Booth #: 315

103 Palladium Way Oak Ridge, TN 37830

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Contact: Alicia Mackowiaki

Booth #: 229

4137 Commerce Circle Idaho Falls, ID 83401

P: 1-208-524-5300 F: 1-208-524-1411

Email: amackowiak@intisoid.com

Website:

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Contact: Malcolm Touhey

Booth #: 814

Hinton House, Risley Warrington Cheshire, WA3 6A5 United Kingdom P: 44-1925-802656 F: 44-1925-835619 Email: malcolm.touhey@innuserv.com

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Contact: Lana Santagata

Booth #: 938

303 Route 94 Columbia, NJ 7832

P: 1-908-496-8008 F: 1-908-496-8004

Email: Isantagata@intertest.com Website: www.intertest.com

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### **Joseph Oat Corporation**

Contact: Crystal Harrington

Booth #: 408

2500 Broadway Camden, NJ 8104

P: 1-856-541-2900 F: 1-856-541-0864

Email: charrington@josephoat.com Website: www.iosephoat.com

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### **Kelly Government Solutions**

Contact: Kay Hillyard

Booth #: 1031

5806 Indian Moccasin Lane

Knoxville, IN 37918

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Email: hillyka@kellyservices.com Website: www.kellyservices.com

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Contact: Joseph (Jong-Kil) Park

Booth #: 130

25-1 Jong-Dong, Yuseong-gu Daejeon, 305-343 Korea

P: 82-42-870-5460 F: 82-42-870-5469

Email: noah3370@naver.com Website: www.khnp.co.kr

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Contact: John Longenecker

Booth #: 710

5052 Pensier Street Las Vegas, NV 92035

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Contact: Kristi Shober

Booth #: 321

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Alpharetta, GA 30009

P: 1-770-360-0600 F: 1-770-360-0631

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Contact: Joel Manship

Booth #: 236

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Email: JManship@maiortool.com Website: www.majortool.com

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Booth #: 332

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Contact: Deanna Bowen

Booth #: 1015

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Booth #: 633

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Booth #: 835

2155 Robertson Drive Richland, WA 99354

P: 1-509-943-6706 F: 1-509-943-0707

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Booth #: 934

200 Technology Way, PO Box 4078

Butte, MT 59702

P: 1-406-494-7410 F: 1-406-494-7230

Email: jody.bickford@mse-ta.com

Website: www.mse-ta.com

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Contact: Jim Walther

Booth #: 839

601 Eubank Blvd. SE Albuquerque, NM 87123

P: 1-505-245-2137 F: 1-505-242-4537

Email: ikwalth@sandia.gov

Website: www.nuclearmuseum.org

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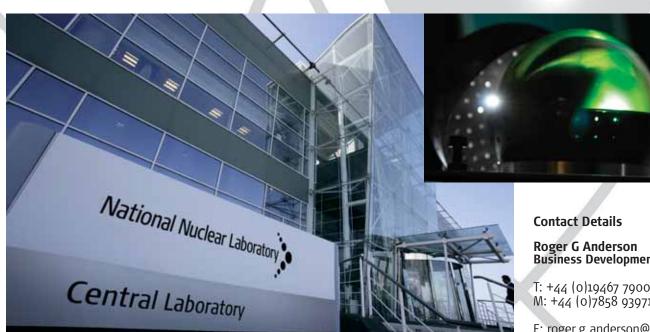
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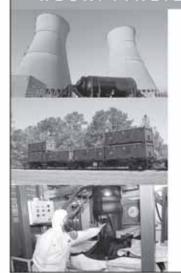
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Booth #: 617

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P: 1-505-667-6394 F: 1-505-665-1235

Email: kftrujillo@lanl.gov Website: osrp.lanl.gov

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Booth #: 604

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Booth #: 122

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Forest, VA 24551

P: 1-434-525-4734 F: 1-434-525-7058

Email: robert@rivertechnologies.biz Website: rivertechnologies.biz

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#### **RJR Engineering, PC**

Contact: Robert Runge

Booth #: 735

PO Box 344

Springville, NY 14141

P: 1-716-592-3980 F: 1-716-592-4216

Email: bob@rjrpc.com Website: www.rjrpc.com

RJR Engineering is a professional engineering company operating under an ASME NQA-1 Quality Assurance Program. We are a SBA small business with professionals licensed in 40 states. We specialize in civil, structural and mechanical engineering, and serve all client types, with a focus on the nuclear and power industries.

#### **Robatel Technologies LLC**

Contact: Ted Grochowski

Booth #: 523

PO Box 12007

Roanoke, VA 24022 P: 1-540-989-2878

Email: tgrochowski@robateltech.com Website: tgrochowski@robateltech.com

Robatel Technologies LLC, based in Roanoke VA, is a wholly owned subsidiary of Robatel Industries SA. We provide design engineering and specialty manufacturing to North American clients offering turnkey capabilities in the areas of glove boxes, hot cells, casks and heavy shielded components.

#### S.A.Technology

Contact: Chance Phillips

Booth #: 532

3985 S. Lincoln Avenue Loveland, CO 80537

P: 1-970-663-1431 F: 1-970-663-1431

Email: cphillips@sarobotics.com Website: www.sarobotics.com

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#### S.M. Stoller Corporation

Contact: Mark Fertitta

Booth #: 515

105 Technology Drive, Suite 190

Broomfield, CO 80021

P: 1-303-546-4331 F: 1-303-443-1408

Email: mfertitta@stoller.com Website: www.stoller.com

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#### Safety & Ecology Corporation - SEC

Contact: Stephanie Long

Booth #: 1011

2800 Solway Road Knoxville, TN 37931

P: 1-800-905-0507 F: 1-865-539-9868

Email: long@sec-tn.com

US and Europe, SEC provides a wide range of services including: Radiological/Hazardous Remediation and Site Closure; Facility D-4 and License Termination; ES&H, RADCON, Emergency Response, Disaster Relief; and Water/Wastewater Services. SEC also has one of the largest Instrumentation Laboratories in the country. SEC's primary NAICS code is 562910. SEC...when results matter.

### Science Applications International Corporation (SAIC)

Contact: Debbra Dupree

Booth #: 518

12100 Sunset Hills Road, M/S 4-3 Reston, VA 20190

P: 1-703-676-5408 F: 1-703-676-8714

Email: debbra.dupree@saic.com

Website: www.saic.com

Science Applications International Corporation (SAIC) has provided DOE/NNSA with decades of support in environmental restoration, remediation, and waste management. Our environmental and nuclear security professionals have helped execute DOE's missions throughout the complex. Now celebrating our 40th anniversary, SAIC remains committed to technical, scientific, and engineering excellence.



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Contact: Jan Lewis Booth #: 614

7604 Technology Way, Suite 300

Denver, CO 80237

P: 1-720-554-8183 F: 1-720-554-8298

Email: jan.lewis@shawgrp.com Website: www.shawgrp.com

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#### Siempelkamp Nuclear Services, Inc.

Contact: Steven Garner

Booth #: 120

153 Lott Court

West Columbia, SC 29169

P: 1-803-796-2727 F: 1-803--939-1083 Email: sgarner@Siempelkamp.na.com

Website: Siempelkamp.na.com

Founded in 1995, Siempelkamp Nuclear Services, Inc. is an environmental remediation services firm specializing in nuclear facility decommissioning and remediation with specific emphasis on decommissioning project planning and turnkey project management and execution. SNS is based in West Columbia, SC and is part of the Siempelkamp family of companies.

#### SM&A

Contact: Michael Nosbisch

Booth #: 128

4695 MacArthur Court, 8th Floor Newport Beach, CA 92660

P: 1-949-975-1550 F: 1-949-896-0374 Email: michael.nosbisch@smawins.com

Website: www.smawins.com

For more than 20 years, SM&A has provided solutions to both government agencies and the companies executing their contracts. These solutions incorporate proven best practices, developed by industry-leading subject matter experts, that provide the cost, schedule, and technical management solutions necessary to successfully PERFORM on today's most challenging programs.



#### Spectra Tech, Inc.

Contact: Loong Yong

Booth #: 506

132 Jefferson Court Oak Ridge, TN 37830

P: 1-865-483-7210 F: 1-865-483-7262

Email: lyong@spectratechinc.com Website: www.spectratechinc.com

Spectra Tech provides nuclear, environmental, and engineering services for government agencies and commercial clients. We have expertise in the areas of nuclear/criticality safety, radiation protection, environmental compliance, health & safety, waste management, environmental sampling and monitoring, Quality Assurance, NEPA, LEED, building commissioning, design engineering, and construction management.

#### Stäubli Corporation

Contact: William Eason

Booth #: 535

201 Parkway West Duncan, SC 29334

P: 1-864-486-5472 F: 1-864-486.5495

Email: c.eason@staubli.com Website: www.staubli.us

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Contact: Jenny Freeman

Booth #: 530

2027 Castaic Lane Knoxville, TN 37932

P: 1-865-934-3400 F: 1-865-934-3439

Email: jfreeman@stratag.org Website: www.stratag.org

Strata-G is a Veteran-Owned Small Business committed to a legacy of environmental and energy stewardship through the successful application of engineering, science, and technology.

#### Strategic Packaging Systems, LLC

Contact: Aldon Beale

Booth #: 935

PO Box 295

Madisonville, TN 37354

P: 1-423-545-9505 F: 1-423-545-9525

Email: aldonbeale@comcast.net

Strategic Packaging Systems LLC., is a manufacturer and supplier of Soft-Sided Packaging Systems, both self liftable and static types. Our products are used for all modes of transporting and storing waste of any kind. We provide a wide range of custom tailored design, and in stock inventories to meet your packaging needs. We welcome your inquiries.

#### Teledyne Brown Engineering – Post Foundation Golf Tournament Host

Contact: Doug Dixon

Booth #: 724

300 Sparkman Drive, 6 Huntsville, AL 35805

P: 1-256-726-5624 F: 1-256-726-3909

Email: Doug.Dixon@tbe.com Website: www.tbe.com

Teledyne Brown Engineering, Inc. provides significant Defense, Space, Environmental and Homeland Security products and services. We build nuclear qualified hardware to ASME and N-Stamp NQA-1 standards for the Federal government and commercial nuclear industry. We provide extensive radiological laboratory services to nuclear facilities. We design and build engineered systems for nonproliferation and national security interests, both foreign and domestic. We provide risk and vulnerability assessments to Homeland Security customers, both government and commercial.

#### TestAmerica, Inc.

Contact: Kim Johnson

Booth #: 500

7911 E City Road N Milton, WI 53563

P: 1-309-264-7200 F: 1-608-868-2168 Email: kim.johnson@testamericaninc.com

Website: www.testamericainc.com

TestAmerica is the leading environmental testing firm in the United States, including 48 laboratories and 24 service centers nationwide. TestAmerica provides comprehensive analytical testing services, including specialty analyses for radiochemistry and mixed wastes, radiobioassay, source and ambient air, specialty organics and dioxin, drinking water, emerging contaminants and sediments.

#### Tetra Tech – Post Foundation Golf Tournament Host

Contact: Margie Vasquez

Booth #: 622

3475 E. Foothill Blvd. Pasadena, CA 91107

P: 1-626-470-2330 F: 1-626-470-2130 Email: margie.vasquez@tetratech.com

Website: www.tetratech.com

Tetra Tech is a leading provider of consulting, engineering and technical services. With over 10,000 associates, our company supports commercial and government clients in the areas of resource management and infrastructure markets. Tetra Tech has provided planning, design, construction and operations support to DOE for more than 30 years. We share DOE's and NNSA's unwavering commitment to safety and protection of our workers, our nation, and the environment.

#### **THOR Treatment Technologies**

Contact: Edgardo Berrios

Booth #: 1034

723 The Parkway Richland, WA 99352

P: 1-509-392-9670 F: 1-509-943-6991

Email: edgardo.berrios@wgint.com

Website: www.thortt.com

THOR Treatment Technologies offers a patented, non-incineration, steam reforming process to convert a variety of problematic radioactive hazardous wastes to a form that can be disposed of safely and cost-effectively.

#### Tidewater-ChesNuc, Inc.

Contact: Cathy Moore

Booth #: 729

7161 Columbia Gateway Drive, Suite C

Columbia, MD 21401

P: 1-410-997-4458 F: 1-410-997-8713

Email: Cathy@tideh2o.net Website: www.tideh2o.net

Tidewater supports fuel cycle and allied radioactive materials customers - including nuclear energy, defense, environmental remediation, and waste disposition. Tidewater's envirnomental technology capabilities complement its technical radiological expertise - including reciprocal radioactive materials licensing for decommissing activities nationwide. Tidewater is an SBA-certified 8(a) company employing over 120 professionals, based in Columbia, MD.

#### **TLI Freight Services, LLC**

Contact: Warren Baugh

Truck #: D

8161 Maple Lawn Blvd. Suite 450

Fulton, MD 20759 P: 1-301-421-4324

Email: wbaugh@tlifreightservices.com Website: www.tlifreightservices.com

TLI Freight Services, the domestic trucking arm of Transport Logistics International, offers integrated transportation solutions for the nuclear fuel cycle. With highly skilled and specially-trained drivers, TLI Freight Services is an integral component in TLI's world-wide transportation network, supported by majority shareholders Nuclear Cargo + Services and the Daher Group.

#### TransModal Logistics, Ltd

Contact: Rick Zink Booth #: 935

2607 Nicholson Road, Bldg II, Suite 2400

Sewickley, PA 15143

P: 1-724-940-5510 F: 1-724-940-5514 Email: rick-zink@transmodallogistics.com Website: www.transmodallogistics.com

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#### UltraTech International, Inc.

Contact: Mario Cruz Booth #: 525

11542 Davis Creek Court Jacksonville, FL 32256

P: 1-800-353-1611 F: 1-904-292-1325

Email: info@radwasteproducts.com Website: www.spillcontainment.com

UltraTech provides innovative product and technology solutions ranging from vents and filters, packaging, storage, absorbents, bag-out bags, Type A packaging, containers, secondary containment and customized products to meet specific site needs. Recent developments to be highlighted will include Energx's macroencapsulation technology and UltraTech's new line of gas sampling filter vents.



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#### **Underwater Construction Corporation**

Contact: Phil McDermott

Booth #: 718

110 Plains Road Essex, CT 06246

P: 1-860-767-8256 F: 1-860-767-0612

Email: pmcdermott@uccdive.com Website: www.UCCdive.com

Underwater Construction Corporation provides diving services for DOE & commercial nuclear facilities in contaminated water including inspection, maintenance, welding, cutting, waste removal, and D&D. Diving operations can be safely and effectively performed in the reactor vessel, fuel storage pools, suppression pool, intake and discharge systems, cooling towers and storage tanks.

#### Underwater Engineering Services, Inc.

Contact: Denise Badini

Booth #: 417

1326 S.W. Biltmore Street Port St. Lucie, FL 34953

P: 1-772-337-3116 F: 1-772-337-0294

Email: dbadini@uesi.com Website: www.uesi.com

Underwater Engineering Services, Inc. provides services for DOE & commercial nuclear facilities in contaminated water including inspection, maintenance, welding, cutting, waste removal, and D&D. Diving operations can be safely and effectively performed in the reactor vessel, fuel storage pools, suppression pool, intake and discharge systems, cooling towers, and storage tanks.

#### **UniTech Services Group, Inc.**

Contact: Gregg Johnstone

Booth #: 711

295 Parker Street, PO Box 51957

Springfield, MA 01151

P: 1-413-543-6911 F: 1-413-543-6989

Email: gjohnstone@unitech.ws Website: www.unitech.ws

UniTech Services Group, Inc. is the world's largest supplier of nuclear protective clothing and accessories. Our nuclear licensed decontamination facilities throughout the US and Europe provide the following services: radiological laundering of protective clothing, decontamination and testing of respirators, and the decontamination of tools & equipment (scaffolding, hand tools, portable HEPA vacuums, etc.). Our products and services are designed to provide our customers cost-effective protection of their workers with minimal generation of radioactive waste.



### Washington Division

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Contact: Bill Whiting Booth #: 1001

106 Newberry Street SW Aiken, SC 29801

P: 1-803-502-9963 F: 1-803-502-9795

Email: william.whiting@urscorp.com

Website: www.wgint.com

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#### **US DOE - Waste Isolation Pilot Plant (WIPP)**

Contact: Bobby St. John

Booth #: 1029

PO Box 2078 MS 65A-104 Carlsbad, NM 88221

P: 1-575-234-7348 F: 1-575-234-7002

Email: bobby.stjohn@wipp.ws Website: www.wipp.ws

The US DOE's Waste Isolation Pilot Plant, or WIPP, became the nation's first operating underground repository for radioactive defense wastes in 1999. The WIPP facility, located in southeastern New Mexico, was designed for permanent disposal of radioactive transuranic waste, the byproduct of nuclear weapons research and production. Project facilities include disposal rooms excavated 2,150 feet underground in an ancient, stable salt formation.

#### **US DOE NV Site Office**

Contact: Dona Merritt

Booth #: 728

PO Box 98952, MS 505AMEM Las Vegas, NV 89193

P: 1-702-295-3082 F: 1-702-295-5300

Email: envmgt@nv.doe.gov Website: www.nv.doe.gov

The US Department of Energy, National Nuclear Security Administration Nevada Site Office Environmental Management Program is responsible for addressing contamination from historic nuclear testing in Nevada, disposing low-level and mixed low-level radioactive waste from approved generators, and conducting environmental protection and compliance activities at the Nevada Test Site.

#### **US DOE Office of Legacy Management**

Contact: Tony Carter

Booth #: 716

1000 Independence Ave SW Washington, DC 20585
P: 1-202-586-3323 F: 1-970-248-7646

Email: tony.carter@hq.doe.gov Website: www.hq.doe.gov

The US Department of Energy Office of Legacy Management (LM) was established in 2003 to provide a long-term, sustainable solution to the legacy of the Cold War. LM is responsible for long-term surveillance and maintenance of environmental remedies, promotion of beneficial reuse, and management of records and information for former weapons production sites across the nation.

#### **US Ecology**

Contact: Steve Welling

Booth #: 702

300 East Mallard Ste. 300 Boise, ID 83706

P: 1-916-769-5007 F: 1-916-939-1490 Email: swelling@americanecology.com Website: www.americanecology.com

US Ecology delivers cost-effective environmental services to producers and handlers of hazardous, toxic, and radioactive wastes. For more than five decades we have served industrial, medical, academic, and government customers from across the nation. Today, US Ecology is the nation's most comprehensive supplier of cost effective waste treatment, transportation and disposal services for low-level radioactive-wastes, naturally occurring, accelerator produced, and exempt radioactive materials, and hazardous and PCB wastes. US Ecology takes pride in its excellent regulatory compliance, safety record and long history of industry leadership.

#### Visionary Solutions, LLC

Contact: Carla Riles

Truck #: B

111 Union Valley Road, Suite B

Oak Ridge, TN 37830 P: 1-865-482-8670 Email: criles@vs-llc.com Website: www.vs-llc.com

Visionary Solutions, LLC an 8(a) SDB providing logistics, transportation, technical services and training to federal and commercial clients. We focus on providing safe, accurate and compliant solutions to complex technical issues relative to packaging, treatment, storage and disposal of hazardous and radioactive material. We specialize in transport and disposal operations.

#### Vista Engineering Techonologies LLC

Contact: Kaylea Johnson

Booth #: 715

1355 Columbia Park Trail Richland, WA 99352

P: 1-509-737-1377 F: 1-509-737-1383

Email: Johnson@vistaengr.com Website: www.vistaenge.com

Vista Engineering is a small business providing engineering and technology development services. Vista Engineering provides the patented Magnetically Coupled Pressure Gauges deployed in nuclear storage applications. and provides engineering services for the patented Low-Range Differential Pressure level monitoring system in Naval fuel facilities. Professional Engineering services include mechanical, electrical, civil, nuclear, and environmental engineering with specialized expertise in HVAC, corrosion and leak detection. Vista Engineering is also a leader in geotechnical services such as ground water monitoring and engineering design and analysis for FEA and CFD.

#### VJ Technologies, Inc.

Contact: Andrew Mertz

Booth #: 1036

89 Carlough Road Bohemia, NY 11716

P: 1-631-589-8800 F: 1-631-588-8992

Email: amertz@vjt.com Website: www.vjt.com

VJ Technologies offers leading-edge solutions for the most advanced X-ray imaging applications. For over 20 years, our highly-specialized divisions have developed and manufactured a complete line of x-ray inspection products for industrial, electronic, medical and nuclear industries. We deliver a competitive advantage over other companies through our network of global offices. For services, we offer

conventional x-ray inspection, microfocus x-ray, Computed Tomography (CT) and high-energy applications (up to 9MeV).

**Wagstaff Applied Technologies** 

Contact: Mike Niccolls

Booth #: 936

3910 N. Flora Road

Spokane Valley, WA 99216

P: 1-509-927-3321 F: 1-509-924-0241

Email: mniccolls@wagstaff.com Website: www.wagstaff.com

Wagstaff AT provides the nuclear industry with mechanical/electrical engineering, fabrication, machining, assembly, and test services. It also provides automated control systems, robotics, custom single-acting hydraulic cylinders and hydraulic power units. Projects include conveyor systems, rolling carriages, rails, cask/container lidding machines, fresh fuel containers, container lids and CO2 blast systems.

#### **Waste Control Specialists**

Contact: Candance Greenwood

Booth #: 514

PO Box 1129 Andrews, TX 79714

P: 1-888-789-2783 F: 1-575-394-3427

Email: cgreenwood@wcstexas.com Website: www.wcstexas.com

Waste Control Specialists LLC (WCS) owns and operates a treatment, storage and disposal facility located on a 1,338 acre site in Andrews County, TX. WCS is currently authorized to treat and store a broad range of hazardous, toxic, and radioactive waste including all classes of LLRW, MLLW TRU, and GTCC; and disposal of LDR compliant toxic, hazardous, and NORM waste. In January 2009, WCS received a final license to dispose of Class A, B and C LLW disposal for Texas Compact and Class A, B and C LLW/MLLW disposal for DOE. Construction is scheduled to begin in April 2010.

#### Westerman Nuclear

Contact: William Moore

Booth #: 431

245 North Broad Street Breman, OH 43107

P: 1-740-569-4143 F: 1-740-569-4111 Email: bmoore@westermancompanies.com Website: www.westermancompanies.com

Westerman Nuclear, Inc., a World Class quality driven manufacturer of Storage Casks, Transportation Cylinders, from Enrichment to Repository. Quality, integrity and competitive pricing have made Westerman a longtime leader. Fabrication capabilities for environmental tanks and casks manufactured to exact specifications.

#### **Westinghouse Electric Company**

Contact: Claudia Scott

Booth #: 618

4350 Northern Pike Monroeville, PA 15146

P: 1-412-374-6503 F: 1-412-374-3777

Email: scottce@westinghouse.com Website: www.westinghouse.com

Westinghouse Electric Company offers a wide range of nuclear plant products and services to utilities throughout the world, including fuel, spent fuel management, service and maintenance, instrumentation and control, and advanced nuclear plant designs. Nearly 50 percent of the nuclear power plants in operation worldwide, and nearly 60 percent in the United States, are based on Westinghouse technology. Worldwide, the more than 9,000 employees of Westinghouse Electric Company continue to pioneer value-added engineering and services creating success for our customers in their increasingly demanding markets. The selection of Westinghouse to supply four AP1000 nuclear power plants in China is the most recent in a series of positive announcements. The AP1000 has also been identified as the technology of choice for no less than 12 new projected plants in the United States.

#### Weston Solutions, Inc.

Contact: Deonna Hernandez

Booth #: 722

3840 Commons Avenue NE Albuquerque, NM 87109

P: 1-505-837-6536 F: 1-505-837-6595 Email: deonna.hernandez@westonsolutions.com

Website: www.westonsolutions.com

Weston Solutions (WESTON) delivers environmental engineering solutions to industry and government worldwide - site remediation, redevelopment, and management and compliance. With a focus on TRU waste, low-level and mixed waste operations, compliance, and high hazard remediation, WESTON and its affiliates implement hazardous and radiological waste operations throughout the US.

#### Wheelift, A Doerfer Companies Technology

Contact: Mel Terry Booth #: 600

3700 S. Weatport Avenue, No. 2850

Sioux Falls, SD 57106

P: 1-425-418-5999 F: 1-319-483-4797

Email: mel.terry@doerfer.com Website: www.doerfer.com

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#### WMG, Inc.

Contact: John LePere

Booth #: 810

16 Bank Street Peekskill, NY 10566

P: 1-914-736-7100 F: 1-914-736-7170

Email: jlepere@wmginc.com Website: www.wmginc.com

A professional nuclear engineering services and software provider to both government and commercial nuclear clients. WMG's proven expertise has been demonstrated in such areas as Major Component Disposition (e.g., Reactor Pressure Vessels and Heads, Steam Generators and Pressurizers), D&D project management and support services (e.g., Shoreham, Big Rock Point, Humboldt Bay, West Valley and SRS), Irradiated Hardware and Spent Fuel Pool Services (e.g., radwaste/material characterization, transport, packaging plans and disposal).

#### **WorleyParson Polestar**

Contact: Jodi Mix Booth #: 830

601 Williams Blvd. Suite 4A Richland, WA 99354

P: 1-509-946-8279 F: 1-509-946-8889

Email: jodi.mix@worleyparsons.com Website: www.worleyparsons.com

WorleyParsons Polestar has provided remediation engineering, nuclear decommissioning, emergency preparedness, nuclear safety, and facility operations and management at numerous government energy facilities. We are a recognized leader within the US Department of Energy Complex in planning and execution of significant deactivation and decommissioning projects on schedule and within budget.

# WM2011 Conference Planning

Planning for the next conference for February 27 – March 3, 2011 is well underway. If you would like to participate as a presenter, or would like to volunteer with WMS, here are some milestones for your planning:

June 14, 2010

**Call for Abstracts Issued** 

WM2011 will solicit abstracts describing research, development and operational experience over the complete spectrum of nuclear waste activities. Proposed topics are categorized into general tracks that are reviewed by the WMS Program Advisory Committee Members and will be posted on www.wmsym.org and mailed in early June.

Sept. 13 & 14, 2010 PAC Abstract Review Meeting

PAC Members gather in Phoenix to review submitted abstracts and create the preliminary program for the WM2011 Conference. Once finalized, authors are notified and draft papers are written.

November 12, 2010

**Draft Papers Due** 

Draft papers are submitted and reviewed in November by members of the PAC in their area of expertise. Authors are given several weeks for any requested updates or revisions and submit their final paper in January. The final program is updated and ready to be printed.

November 1, 2010

**Registration Opens** 

Registration for the conference is open online at <a href="https://www.wmsym.org">www.wmsym.org</a> in early November.

Feb. 27 - March 3, 2011

**WM2011 Conference** 

For more information on the WM2011 Conference, please visit:

#### www.wmsym.org

#### **PAC Volunteers**

If you are interested in learning more about the Program Advisory Committee, please contact Gary Benda at <a href="mailto:gbenda@wmarizona.org">gbenda@wmarizona.org</a> for more information.

#### WM2012 & WM2013 Conferences

The WM2012 Conference will be held February 26 – March 1, 2012 and the WM2013 Conference will be held February 24 – 28, 2013 at the Phoenix Convention Center, West Building. For more information, please visit <a href="https://www.wmsym.org">www.wmsym.org</a>.







## Roy G. Post Foundation Official Benefit Golf Tournament 2010







Held at the Raven Golf Club at South Mountain in Phoenix on Saturday, March 6, 2010; the Roy G. Post Foundation Golf Tournament provides funding for scholarships for the next generation of nuclear scientists and engineers. Please join us on Tuesday, March 9<sup>th</sup> at the Awards and Honors Luncheon to see the scholarship presentation for 2010.

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