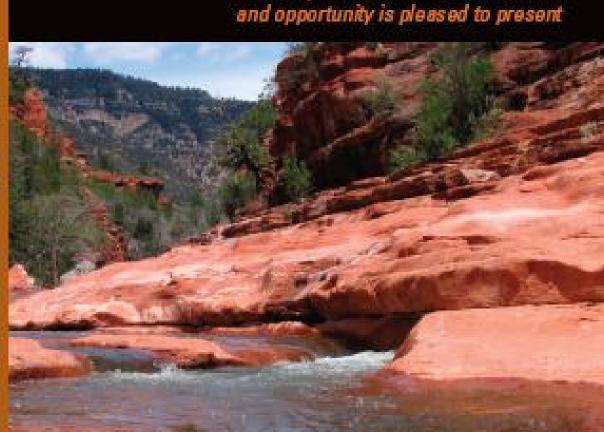


## WM Symposia Non-profit dedicated to education



## WM2009 Waste Management for the Nuclear Renaissance

HLW, TRU, LLW/ILW, Mixed, Hazardous Wastes & Environmental Management

> Final Program: March 1-5, 2009 Phoenix, Arizona

#### WM SYMPOSIA THANKS OUR 2009 SPONSORS FOR THEIR GENEROUS CONTRIBUTIONS

#### Gold









Silver





#### Bronze



**Registration Packets** 

Janis Bradburne Consulting

Platts

www.wmsym.org

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#### PART THREE – WM2009 EXHIBITION AND MARKETPLACE

WM2009 Exhibitors and Exhibit Hall Map81
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Times and locations are subject to change, please see signage onsite for updates.

#### Welcome to Phoenix!

The annual Waste Management Conference - presented by WM Symposia (WMS), a non-profit dedicated to education and opportunity – is widely regarded as the premier international conference for the management of radioactive material and related topics. The 35th annual conference, WM2009, will convene in the Phoenix Convention Center (PCC) North Building.

Five years and \$600 million in the making, the Phoenix Convention Center celebrated its public grand opening on Dec. 27, 2008. The expanded Phoenix Convention Center is 2.7 million square feet and boasts nearly 900,000 square feet of exhibition and meeting space. It houses three ballrooms (including the largest one in Arizona), 11 exhibit halls (including one the size of five football fields), and

56 meeting rooms (including several with outdoor patios and pre-function space).



The convention center's sweeping architecture is inspired by the Grand Canyon, and is accentuated by \$3.2 million worth of public art, and its West Building has been awarded LEED certification by the U.S. Green Building Council. Artful whimsy and ecological functionality come together at the convention center's water-harvesting garden, where giant sculptures of desert creatures preside over a recycling process that converts condensation from the heating and cooling system into irrigation water for landscaping. The Phoenix Convention Center is located at 111 N. 3<sup>rd</sup> Street, Phoenix, AZ 85004, with a Metro Station located at Central and Washington Avenues.

METRO Light Rail, which debuted in downtown Phoenix on the same day as the convention center, connects meeting attendees to a new realm of dining and entertainment possibilities. The light-rail system operates at street level and is powered by electricity from overhead wires. The quiet, air-

conditioned trains operate 20 hours per day, seven days a week, and stop at stations every 10 minutes. The fare to ride is \$1.25 for a one-way trip or \$2.50 for an all-day pass.

WM2009 is proud to be among the first conferences booked in the new North Building. For WM2010, the conference will return to the West Building, located just next door.

#### WM2009 Registration Hours

Saturday, February 28	1:00 PM – 5:00 PM
Sunday, March 1	1:00 PM – 8:00 PM
Monday, March 2	7:00 AM – 5:00 PM
Tuesday, March 3	7:00 AM – 5:00 PM
Wednesday, March 4	7:00 AM – 5:00 PM
Thursday, March 5	7:00 AM – 12:00 PM

WM2009 Exhibition & Marketplace Hours

Questions concerning the conference should be directed to WM Symposia +1 520-696-0399 or the WMS Meeting Planner, Mary E. Young, CMP with M.Y. Events, Inc. at +1 480-968-7559 or by email to mary@wmarizona.org.

#### Meeting Contacts and WMS Officers and Directors

#### WM2009 Planning Committee

*Fred Sheil*, General Chair *Gary Benda*, Program Advisory Committee Chair *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

**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: linda\_l\_lehman@rl.gov V: +1 612-867-9725 F: +1 509-628-8389

Meeting Planner - *Mary E. Young, CMP with M.Y. Events, Inc.* E: mary@wmarizona.org V: +1 480-968-7559 F: +1 480-968-7560

WM Symposia 1628 E. Southern Avenue, Ste 9 – 332 Tempe, AZ 85282 USA V: +1 480-968-7559 F: +1 480-968-7560

#### WM Symposia Corporate Officers

Chairman of the Board James Gallagher, Gallagher Consulting President Fred Sheil, Sellafield Ltd. Treasurer Steven Kadner, Canberra Aquila Inc. Secretary John Mathieson, NDA Legal Counsel James Glasgow, Morgan, Lewis & Bockius, LLP Managing Director James Voss, The Terra Verde Group

#### WMS Board of Directors

Larry Camper, US NRC Paul Crawley, Arizona Public Service George Dials, B&W Technical Services Group James Fiore, US DOE James Gallagher, Gallagher Consulting Group Heinz Geiser, GNS mbH William T. Gregory III, Vinculum Lawrence Harmon, Project Enhancement Corp. Steven P. Kadner, Canberra Aquila, Inc. John Longenecker, Longenecker & Associates Jack L. McElroy, Consultant John Mathieson, NDA Lance Mezga, Oak Ridge National Laboratory Sue J. Mitchell, GEM Technologies, Inc. Mamoru Numata, JGC Corporation Michelle Rehmann, Tetra Tech Nancy Rothermich, Lawrence Berkley National Lab Fred Sheil, Sellafield Ltd. James W. Voss, The Terra Verde Group Robert F. Williams, WTA, Inc.

#### WMS Board Members Emeritus

Ron K. Bhada, New Mexico State University Scott Dam, ASD E&C Howard M. Frederick, Consultant James Glasgow, Morgan, Lewis & Bockius, LLP John Hurley, Consultant Alec E. Kelley, Professor Emeritus Hiroshi Kuribayashi, Consultant James G. McCray, Professor Emeritus, U of A Takao Nakajima, JAIF & Kurihalant Co., Ltd.

#### WMS Administrative Support

Director of Meetings - *Mary E. Young, CMP* E: <u>mary@wmarizona.org</u>

Papers Administrator - *Stacey Cope* E: <u>papers@wmarizona.org</u>

Registration & Housing – *Cali Adkisson* E: onlinereg@wmarizona.org

#### WM2009 SCHEDULE OF EVENTS

All Sessions will take place at the Phoenix Convention Center – North Building unless noted otherwise

#### SATURDAY, FEBRUARY 28, 2009

6:00 a.m. – 7:00 p.m.	Guest Tour – Grand Canyon*
8:00 a.m.	Roy G. Post Foundation Fundraising Golf Tournament - offsite at Raven Golf Club*
1:00 p.m 5:30 p.m.	Registration Open – Level Three
5:00 p.m. – 9:30 p.m.	PAC Meeting and Dinner – Hyatt Regency Phoenix

#### SUNDAY, MARCH 1, 2009

8:30 a.m. – 3:00 p.m.	WMS Board of Directors Meeting – Hyatt Regency Phoenix
9:00 a.m 5:00 p.m.	"Nuclear Project Management - Keys to Success" Workshop*
9:00 a.m. – 5:00 p.m.	ANS Teacher Workshop – Level Two
1:00 p.m. – 8:00 p.m.	Registration Open – Level Three
2:00 p.m. – 3:30 p.m.	Student Assistant Training – Level Two
3:00 p.m. – 4:00 p.m.	Roy G. Post Foundation Trustees Meeting – Hyatt Regency Phoenix
3:00 p.m. – 4:00 p.m.	First Time Attendee Session – Level Two
4:00 p.m. – 4:45 p.m.	Volunteer and PAC Members Opportunities Session – Level Two
5:00 p.m. – 8:00 p.m.	Welcome Reception and Exhibit Hall Open – Level Three

#### MONDAY, MARCH 2, 2009

7:00 a.m 5:00 p.m.	Registration Open – Level Three
7:00 a.m. – 8:00 a.m.	Speakers Breakfast – Level Three
7:00 a.m. – 5:00 p.m.	Guest Tour – Sedona Red Rock Adventure*
7:30 a.m. – 11:00 a.m.	ASME Radwaste System Committee Meeting – Level Two
7:00 a.m. – 8:30 a.m.	Continental Breakfast – Level Three
8:00 a.m 10:00 a.m.	Opening Plenary Session – Level Three
9:30 a.m 6:00 p.m.	Exhibit Hall Open – Level Three
10:15 a.m. – 5:00 p.m.	Technical Sessions 2-22 – Level Two
12:00 p.m 1:30 p.m.	Keynote Luncheon – Level Three
2:30 p.m. – 3:30 p.m.	Refreshment Break – Level Three Exhibit Hall & Level Two Posters
4:30 p.m 6:00 p.m.	International Welcome Reception in Exhibit Hall – Level Three
6:00 p.m. – 7:30 p.m.	Students and Young Professionals Networking – Level Two

#### TUESDAY, MARCH 3, 2009

Speakers Breakfast – Level Three
Registration Open – Level Three
Refreshment Break – Level Three Exhibit Hall & Level Two Posters
Technical Sessions 23-50 – Level Two
IFSOUP Meeting – Level Two
Guest Tour – Heard Museum*
Exhibit Hall Open – Level Three
Honors and Awards Luncheon – Level Three
Refreshment Break – Level Three Exhibit Hall & Level Two Posters
Best of Arizona Reception in Exhibit Hall – Level Three
Women of Waste Management (WoWM) Networking Reception – Level Two

#### WEDNESDAY, MARCH 4, 2009

7:00 a.m. – 8:00 a.m.	Speakers Breakfast – Level Three
7:00 a.m 5:00 p.m.	Registration Open – Level Three
8:00 a.m. – 8:30 a.m.	Refreshment Break – Level Three Exhibit Hall & Level Two Posters
8:30 a.m 5:00 p.m.	Technical Sessions 51-78 – Level Two
9:30 a.m 12:30 p.m.	Exhibit Hall Open – Level Three
9:30 a.m. – 1:30 p.m.	Guest Tour – Shopping Tour to Scottsdale Fashion Square*
12:00 p.m1:30 p.m.	ASME ICEM 2010 Orientation and Planning Meeting – Level Two
2:30 p.m. – 3:30 p.m.	Refreshment Break – Level Two Posters
6:30 p.m 10:30 p.m.	Corona Ranch Event – <i>offsite at Corona Ranch</i>

#### THURSDAY, MARCH 5, 2009

Two

Please refer to the tri-fold schedule provided in your registration packet and signage for specific room assignments

#### WM2009 PROGRAM ADVISORY COMMITTEE (PAC)

Gary Benda, Studsvik, Inc. WM2009 PAC Chair Linda Lehman, CH2M Hill, WM2009 Deputy PAC Chair

## WM2009 Deputy PAC Chair

Hugh Abbott\*, Consultant Sue Aggarwal, New Millennium Nuclear Technologies Kim Auclair, KD Auclair & Associates Harry Babad, Consultant Frederic Bailly\*, AREVA Nuclear Cycle Del Baird, CDM Federal Programs Gabriele Bandt\*, TÜV NORD EnSys Hannover 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, Washington Closure Hanford Enrique Biurrun\*, DBE Technology Gmbh Dick Blauvelt, Navarro Research and Engineering, Inc Elizabeth Bowers, US DOE - Richland Tom Brouns, Battelle/PNNL Steve Brown, SHB Inc. Frazier Bronson, Canberra Patricia Bubar, US NRC **Connie Callan, National Educational Technology Solutions** Larry Camper, US NRC Grant Charters, New Millennium Nuclear Technologies Donald Clark, DEC Enterprises Ray Clark, US EPA Hans Codee\*, CORVA N.V. John Coffman, DeNuke Services Judy Connell, Fluor Government Group Michael Connolly, Battelle Energy Alliance James Cook, SRNL (Retired) John Dalton\*, UK NDA Dorothy Davidson, AREVA NP Ed Day, Pell Resources Ramesh Dayal\*, SENES Consultants Rick Demmer. INL Murthy Devarakonda, Washington TRU Solutions, LLC Jas Devgun, Sargent & Lundy, LLC Paul Dickman, US NRC David Eaton, INL ICP Leif Eriksson, Consultant **Erich Evered, Consultant** Terri Fellinger, WSRC Jim Fiore, US DOE Mark Frei, Consultant Albert Freitag, Burns & Roe Critz George, Consultant April Gil, US DOE - YMP Eugene Gleason, Nuclear Management Associates, LLC.

Donald Goebel, Safety and Ecology Corporation Welford Goldston, WSRC Sal Golub, US DOE Ania Graf\*, Forschungszentrum KA John Greeves, Talisman William Gregory, Vinculum Richard Grondin, Perma-Fix **Environmental Services** Kenneth Guay, USDOE NNSA YSO Jackie Hacker, Shaw E&I Harry Harmon, PNNL Lawrence Harmon, Project **Enhancement Corporation** Kathrvn Havnes, Southeast Compact Commission Bob Hiergesell, SRNL Steven Houser, Cabrera Services Betty Humphrey, Weston Solutions James Hylko, Paducah Remediation Services Leslie Jardine, LLNL Norman Jetta, Jetta Systems LLC Angle Jones, AMEC Earth and Environmental Myron Kaczmarsky, The Shaw Group Paul Kalb, BNL Stan Kosiewicz, Weston Solutions John Kristofzski, CH2M Hill Heinz Kröger\*, TÜV NORD EnSys Hannover Christian Ladirat\*, CEA Valrho Kun Lee\*, KAIST (Korea) Mark Lewis, EnergySolutions Maria Lindberg\*, Studsvik UK Ltd Mark Lusk, EG & G Technical Services John Longenecker, Longenecker & Associates Paul Macbeth, US DOE - Richland Margaret MacDonell, ANL Jay Maisler, Enercon Services Herve Masson\*, AREVA NC John Mathieson\*, UK NDA Mark Matthews, Matthews, Inc. Lloyd McClure, Consultant Charles McCombie\*, McCombie Consulting Jack McElroy, Consultant Lance Mezga, ORNL C. Clint Miller, PG & E Sue Mitchell, GEM Technologies Sitakanta Mohanty, Center for Nuclear Waste Reg. Analysis Barry Moravek, MSE Tech. Applications Roger Nelson, US DOE Reinhard Odoj\*, Forschungszentrum Jüelich GmbH Michael Ojovan\*, University of Sheffield Olaf Oldiges\*, GNS Gérald Ouzounian\*, ANDRA **Colleen Owens, LATA** Kirk Owens, SAIC Alan Pasternak, Cal Rad Forum Claudio Pescatore\*, OECD/NEA Bernard Poncet\*, EDF-CIDEN

Kenneth Redus, Redus and Associates Larry Regens, University of Oklahoma Health Sciences Center Michelle Rehmann, Tetra Tech EM John Remark, AREVA NP Sue Rice, Cavanaugh Services Allen Roos, US ACE Nancy Rothermich, LBNL Sylvain Saint-Pierre\*, WNA Elizabeth Saris, SAIC Detlef Schmidt\*, Nuclear Projects Consultancy (NuProCo) Fred Sheil\*, Sellafield Sites Stewart Smith. Hvdro Geo Chem Sergey Stefanovsky\*, SIA "Radon" Wolfgang Steinwarz\*, Siempelkamp Roger Stigers, PPL Susquehanna Robin Sweeney, US DOE - YMP Andrew Szilagyi, US DOE Michael Szukala\*, Siempelkamp Alex Thrower, US DOE - YMP Eric Tiepel, Golder Associates Christopher Timm, Pecos Management Services Julia Tripp, INL Linda Ulland, University of Minnesota Luis Valencia\*, Forschungszentrum Karlsruhe GmbH Rik Vanbrabant\*, Belgoprocess George Vandegrift, ANL Tialle (Chuck) Vandergraaf, Providence College Bernard Vigreux\*, SFEN James Voss, The Terra Verde Group Wendell Weart, WD Weart Consulting Terry Wickland, NFT Bob Williams, Consultant Donald Wood, GaeaTech Services Chuan-Fu Wu, US DOE **Richard Yoshimura, SNL** M. Bernie Zgola\*, CNSC Ming Zhang\*, AIST

\* = International Members

### The 2009 Track Co-chairs are shown in bold

In addition to the PAC Members listed above, WMS thanks all of the 2009 volunteer Organizers, Session Sponsors, Paper Reviewers, Panel Reporters, and Session Co-Chairs. Their names are listed in the technical program by session.

If you're interested in learning more about WM Symposia and the opportunities to volunteer at the annual conferences, plan to attend the **Volunteer & Program Advisory Committee (PAC) Members Opportunities Session** 4:00 PM – 4:45 PM on Sunday, March 1, 2009.

#### **REGISTRATION CATEGORIES**

**Full Technical Registration** includes four days of the conference, receptions, Monday and Tuesday lunches and proceedings as well as the Wednesday evening event.

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

**One Day Technical Registration** includes one day of the conference, reception, lunch and proceedings. If registering for Wednesday, Thursday attendance and the Corona Ranch event are included.

**Student and Retired Professional Registration** - see Full Technical Registration description above. Open to full-time students only.

**Speakers/Panelists** - please note that all attendees of the WM2009 conference, *including speakers and panelists*, must register for the conference in one of the above 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. WMS reserves the right to limit guest participation. Guests are defined as spouses and significant others and are **NOT BUSINESS ASSOCIATES!** Co-workers or associates in the industry do not apply. No one under the age of 18 years old is permitted to attend the conference.

#### **REGISTRATION FEES**

	Onsite Fees
Full Technical	\$995
2 Day Tech – Monday/Tuesday or Tuesday/Wednesday	\$795
1 Day Tech – Monday, Tuesday or Wednesday	\$650
Full-Time Student	\$35
Sunday Workshop: Nuclear Project Management	\$195 each
Exhibit Hall Only	\$495
Guest Registration	\$175
Lunch Ticket – Monday or Tuesday	\$50 each
Corona Ranch Event Wednesday	\$75 each

#### WM2009 REGISTRATION DESK HOURS

Saturday, February 28	1:00 PM – 5:00 PM
Sunday, March 1	.1:00 PM – 8:00 PM
Monday, March 2	. 7:00 AM – 5:00 PM
Tuesday, March 3	7:00 AM – 5:00 PM
Wednesday, March 4	. 7:00 AM – 5:00 PM
Thursday, March 5	. 7:00 AM – 12:00 PM

#### HOTEL ACCOMMODATIONS

Hyatt Regency Phoenix <u>www.HyattPhoenix.com</u> 122 North Second Street, Phoenix, AZ 85004 P: +1 602-252-1234 F: +1 602-254-9472

Wyndham Phoenixwww.wyndham.com50 East Adams Street, Phoenix, and AZ 85004P: +1 602-333-0000

 Hilton Suites Phoenix
 www.hilton.com

 10 East Thomas Road, Phoenix, AZ 85012-3114

 P: +1 602-222-1111

 F: +1 602-265-4841

#### **SpringHill Suites by Marriott Phoenix**

 Downtown
 www.springhillsuites.com

 802 E. Van Buren St., Phoenix, AZ 85006

 P: +1 602-307-9929

 F: +1 602-307-9964

# Holiday Inn Express Hotel & Suites PhoenixDowntownwww.ichotelsgroup.com620 N. Sixth Street, Phoenix, AZ 85004

P: +1 602-452-2020 F: +1 602-252-2909

#### **Radisson Phoenix City Center**

<u>www.radisson.com/phoenixaz\_citycenter</u> 3600 North 2<sup>nd</sup> Avenue, Phoenix, AZ 85013 P: +1 602-604-4900 F: +1 602-604-4901

#### Fairfield Inn and Suites <u>www.marriott.com</u>

2520 North Central Avenue, Phoenix, AZ 85003 P: +1 602-716-9900 F: +1 602-716-9909

#### **Radisson Hotel Phoenix Airport North**

<u>www.radisson.com/hotels/azphxapn</u> 427 North 44th Street, Phoenix AZ 85008 P: +1 602-220-4400 F: +1 602-244-2325

#### **TRANSPORTATION**

#### **Phoenix Sky Harbor International Airport**

http://phoenix.gov/skyharborairport/ 3400 E. Sky Harbor Blvd, Suite 3300, Phoenix, AZ 85034 P: +1 602-273-3300

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 DISCOUNTS**

Avis800-331-1600www.avis.comDiscount Code: D086775

Enterprise 800-736-8222 <u>www.enterprise.com</u> Discount Code: 50C0395 Group Number: WMS

Hertz 800-654-2240 www.hertz.com Meeting CV Code: 19D0008

#### <u>COPPER SQUARE DASH – DOWNTOWN</u> <u>SHUTTLE</u>

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 <u>www.coppersquare.com</u>.

#### SUPERSHUTTLE AIRPORT SERVICE

Advanced reservations, through <u>www.supershuttle.com</u>, are required for WM2009 discounted rates. Enter online discount code: **C2SFDG**.

\$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. SuperShuttle Shared-Ride Van Service or Exclusive Van Service: Call +1 602-244-9000 at least 24 hours in advance of your departure time. Reservation agent will suggest pick up time from your hotel.

#### METRO Light Rail www.valleymetro.org

METRO is the brand name for Phoenix's brandnew metro rail system, see the map enclosed.

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.



The service day begins at 4:40 a.m. on all platforms. Trains depart all platforms for the last full-trip of the evening at 11 p.m., arriving at their respective ends-of-the-line at midnight.

METRO light rail and Valley Metro bus share the same fare system. An all-day pass for \$2.50 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.

Metro station near the Radisson City Center, Hilton Suites and Fairfield Inn: Thomas and Central Avenues.

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

#### **CONFERENCE PROCEEDINGS**

The conference proceedings are included with a full technical registration. Following the conclusion of the conference, *approximately June 2009*, attendees will be mailed a CD-ROM of the conference proceedings to the address listed on their registration materials.

#### <u>TAXIS</u>

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, if requested before departure.

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

#### **LUNCHES**

Monday and Tuesday's Lunches are ticketed events and are included with a full technical registration. There is not a formal conference lunch on Wednesday, attendees are on their own.

Exhibitors who would like to purchase a ticket to either lunch may do so for \$50 onsite.

#### PCC FOOD COURT

#### 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 3<sup>rd</sup>:

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:* 

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

#### REFRESHMENT BREAKS

Plenary session beverages and pastries will be served Monday morning at 7 am outside the Plenary Session Room on the third level.

Refreshment breaks will be served Monday thru Wednesday at 8 AM and 2:00 PM and Thursday at 8 AM in the Exhibit Hall and near the session rooms on the second level.

#### "INSIGHT" DAILY CONFERENCE NEWSLETTER

Editors: Linda Lehman and Linda Ulland Volunteer Staff: Joy Shoemake, Mike Berriochoa and Lynette Bennett Design Layout by Pam Bradford

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 newsletter will be published Sunday/Monday, Tuesday and Wednesday/Thursday during the conference.

Pick up your copy outside the Exhibit Hall on the third level and near the meeting rooms on the second level of the PCC.

#### SPEAKER AND CO-CHAIR CHECK-IN

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

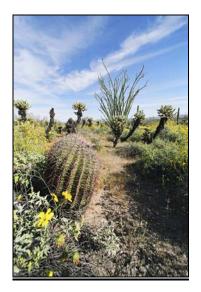
Speakers who are not checked in at least two hours before their session will have their presentation shown as canceled on the presentation boards at the session room entrance or their poster space canceled.

#### 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 on the third Floor Level of the North Building. 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.

#### **CONFERENCE SUPPORT SERVICE CENTER**

The UPS Store located in the PCC will provide copy services and is staffed M–F from 7:00 AM -6:00 PM and Saturday from 8:00 AM - 1:00 PM. The UPS Store has a second location located in the lobby of the Hyatt Regency and can also provide services M-F from 8:00 AM - 5:30 PM and Saturday from 9:00 AM - 1:00 PM.



#### WM2010 PLANNING DATES

Be sure to bookmark the WM Symposia's website at <u>www.wmsym.org</u> and check back for updates as we progress towards WM2010.

If you're interested in presenting at WM2010, mark your calendar for the deadline to submit an abstract. Potential authors are asked to submit an abstract between 400 – 800 words by the deadline of August 31, 2009.

The WM2010 Topic List will be posted on the website approximately April 2009, be sure to review for suggested topics.

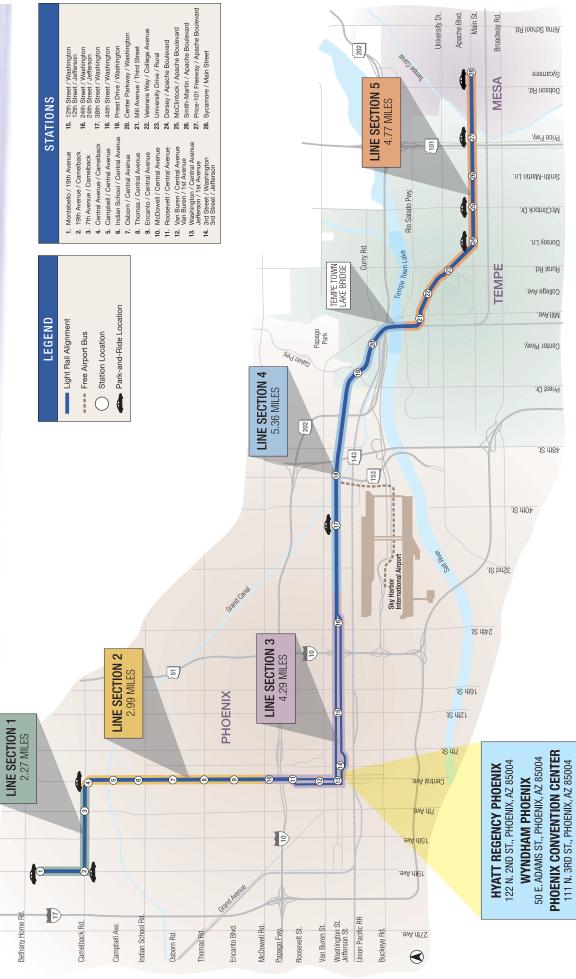
The Abstract Review Meeting will be held September 12 – 15, 2009 at the Doubletree Paradise Valley. More details will be provided for the PAC/IPAC members at the Thursday, March 5<sup>th</sup> meeting.

Exhibitors will be offered the opportunity to reserve booth space onsite during this conference. Open sell for new exhibitors will begin July 15, 2009.

WM2010 will be held March 11 – 15, 2010 at the Phoenix Convention Center – West Building. Registration will open approximately November 1<sup>st</sup>.

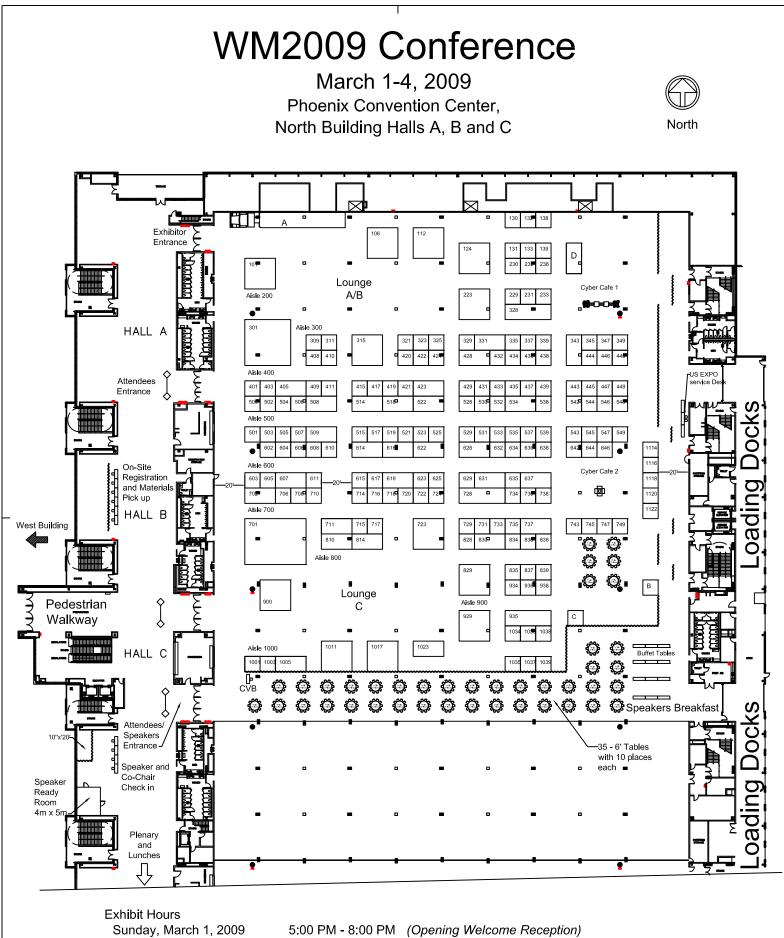


# **METRO LIGHT RAIL LINE**



## Phoenix Convention Center WALKING & PARKING GUIDE -2009

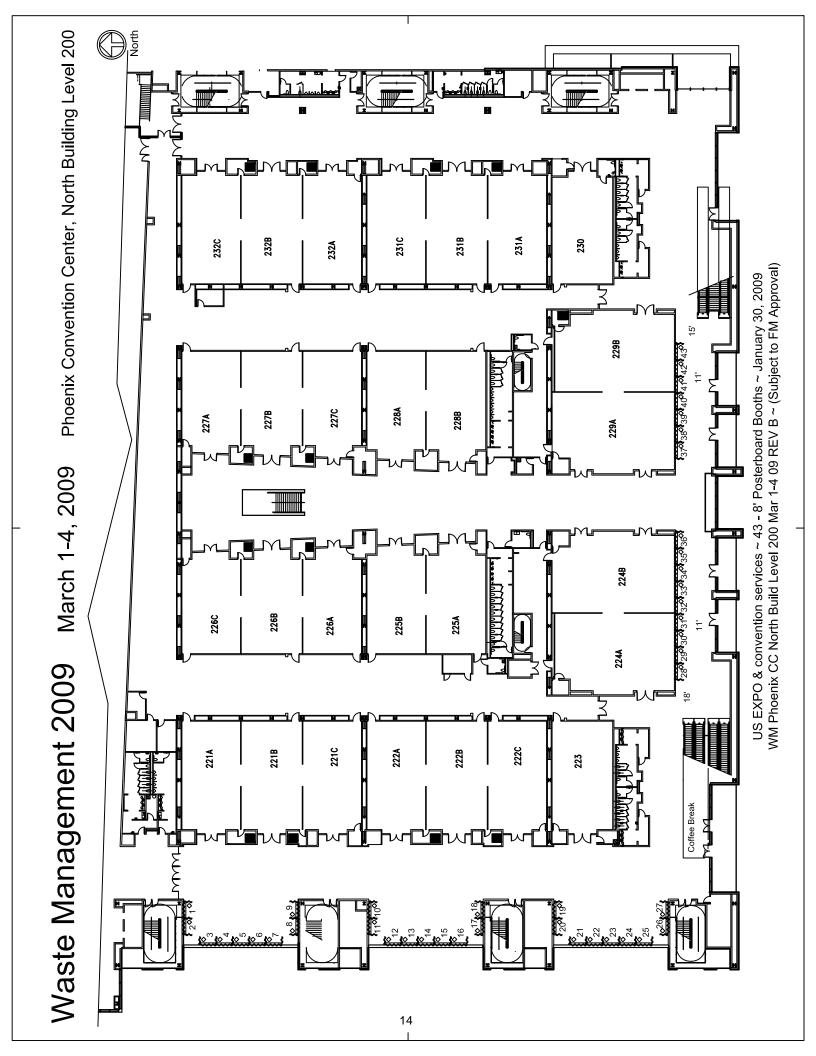




Monday, March 2, 2009 Tuesday, March 3, 2009 Wednesday, March 4, 2009

9:30 AM - 6:00 PM 9:30 AM - 12:30 PM

9:30 AM - 6:00 PM (International Reception 4:30 pm - 6 pm) (Best of Arizona Reception 4:30 pm - 6 pm)



#### **Keynote Luncheon**

#### **MONDAY, MARCH 2, 2009**

12:00 PM – 1:30 PM PCC Level Three



Dr Peter A. Bleasdale Managing Director National Nuclear Laboratory

#### National Nuclear Laboratory: Vision to Reality

Peter Bleasdale is a Chartered Engineer with a PhD in Metallurgy from the University of Liverpool in the UK. He began his career in 1976 with the UK Government's Ministry of Defence. During his stay with the Ministry, Peter worked in a range of senior positions and ultimately carried responsibility for the procurement and stockpile management of all special nuclear materials, the nuclear waste management programme and oversight of the Atomic Weapons Establishment (AWE) research programme.

Peter joined nuclear fuel cycle services company British Nuclear Fuels plc (BNFL) in 1990. He initially managed the company relationship with the Ministry of Defence before being appointed Assistant Director, Commercial and Planning for the BNFL Fuel Division. Based at the Springfields site in the UK, the BNFL Fuel Division was a major supplier of fuel products and services to the nuclear market. Peter's contribution to the BNFL business was further recognised when he became Deputy Director, Fuel Division and BNFL's Head of Technology and Business Development.

In 1996, BNFL created an integrated Research and Technology (R&T) function to replace its existing multi centred approach. Peter was appointed to lead the new function into a new era for the BNFL Group. In 2003, BNFL R&T was re-launched as Nuclear Sciences and Technology Services (NSTS) with Peter as Chief Executive. NSTS represented the introduction of greater commercial awareness and customer focus for the BNFL technology business group.

NSTS embraced the nuclear research activities of BNFL including the former Magnox Electric. Under Peter Bleasdale's leadership, the business made rapid commercial progress and added to its capability and portfolio with the acquisition of the Nuclear Science business of AEA Technology in late 2003. NSTS became a full BNFL subsidiary with a separate balance sheet in April 2005. The rebranded Nexia Solutions Ltd, driven by Peter Bleasdale as Managing Director, continued its development as a sustainable commercial company in a competitive marketplace.

Peter played a fundamental role in transforming Nexia Solutions into the UK's National Nuclear Laboratory (NNL). His enthusiasm, vision and leadership led to the creation and implementation of an NNL that will become an international centre of excellence in nuclear research and development. The Lab will play a vital role in cleaning up the UK's nuclear waste legacy and will make a major contribution to the programme of nuclear new build. The NNL will safeguard and develop the UK's high-tech nuclear expertise, facilities and skills.

#### Women of Waste Management (WoWM)

Women delegates to WM2009 – and anyone interested in opportunities for women in our industry – should not miss the **Women of Waste Management: Panel and Networking Reception** on Tuesday, March 3rd. The Panel will start at 6:00 PM and the reception follows immediately. Share experiences, network, and learn about opportunities for women at all levels of their careers from 6:00 PM – 7:30 PM.

Hosted by the Roy G. Post Foundation's Professional Opportunities Campus and organized by Post Foundation President Michelle Rehmann (Tetra Tech), this year's exciting roster of panelists brings diverse perspectives as veteran members of Government Congressional Affairs offices; leaders of environmental impact assessment teams; and rising stars in our industry. Our panelists are:

- Karen Patterson, Manager, Environmental Science Group - Tetra Tech
- Rebecca Schmidt, Director, Office of Congressional Affairs - US Nuclear Regulatory Commission
- Leah Spradley, Performance Assessment Branch, Division of Waste Management and Environmental Protection - US Nuclear Regulatory Commission

This panel and reception are open to all attendees and no pre-registration is required.



Karen Patterson Manager, Environmental Science Group Tetra Tech

Karen Patterson is the Environmental Science Group Manager at the Aiken, South Carolina office of Tetra Tech NUS where she manages biologists, planners and socioeconomists engaged in environmental impact assessments. She manages preparation of DOE EISs, and environmental reports for commercial nuclear power plant license applications and extensions. With degrees from Randolph-Macon Woman's College, Wake Forest University, and the University of South Carolina, Karen thinks of herself a herpetologist, not a manager.

Devoting her career to assessing impacts of nuclear facilities, Karen has also served on Advisory Boards and Councils. Karen will offer insights on career opportunities based on her work as an environmental scientist engaged in the assessment of the impacts of the operation of nuclear facilities.



Rebecca Schmidt Director, Office of Congressional Affairs - US Nuclear Regulatory Commission

Rebecca Schmidt has served as Director of the Office of Congressional Affairs at the US Nuclear Regulatory Commission since October 2005. Before this appointment, Rebecca served six years as Associate Director for Budget Presentation and Congressional Liaison in the Office of the Under Secretary of Defense (Comptroller). She began her federal career in 1983 as a Presidential Management Intern with the Department of the Army. Since that time, she has held a number of progressively more responsible positions including, Chief Management Division, Directorate of Resource Management, US Army Support Command, Hawaii; Senior Defense Analyst and Senior International Analyst, Committee on the Budget, US House of Representatives; Senior Professional Staff Member to the House Armed Services Committee; and Budget Analyst, Office of the Under Secretary of Defense (Comptroller).

A native of Ohio, Rebecca received a Bachelor's degree in Political Science from Wittenberg University and a Master's degree in Public Policy Analysis from Duke University.



Leah Spradley Performance Assessment Branch, Division of Waste Management and Environmental Protection US Nuclear Regulatory Commission

Leah Spradley recently completed a PhD in environmental engineering and management from Vanderbilt University. Her graduate studies related to the nation's proposed high-level waste repository at Yucca Mountain.

After receiving a 2008 Roy G. Post Foundation scholarship, she applied the funding towards visiting nuclear waste facilities in Sweden and Finland – and she will share the career perspectives she gained from those visits during this panel. Leah now works for the US Nuclear Regulatory Commission in the Division of Waste Management and Environmental Protection, where she reviews and develops computer models to predict the long-term risk of radioactive waste facilities.

#### Wednesday, March 4, 2009



7611 South 29<sup>th</sup> Avenue, Phoenix, AZ 85339 602-237-3303 <u>www.coronaranch.com</u>

6:00 pm – 6:45 pm Transportation 6:30 pm – Reception and Trick Roping Trio 7:15 pm – Buffet Dinner 8:00 pm - Ballet Folkloric Dancers

Enjoy a wonderful evening at the Ranch at this year's Mexican Fiesta! WM2009 will host an evening at Corona Ranch that will feature a reception and buffet dinner.

Buses will pick up from the Hyatt Regency Phoenix starting at 6:00 pm – 6:45 pm. The event will begin with cocktails at 6:15 pm.

Buses will return guests to the conference hotels (Hyatt, Wyndham and SpringHill Suites) beginning at 8:30 pm. The last bus will depart Corona approximately 10:15 pm. Drivers may pick up directions at the Registration Desk.

A full technical registration or guest registration includes this event. Additional guest tickets may be purchased onsite at the Registration Desk for \$75 each. Event ticket includes 2 drink tickets (beer, wine, margarita, soft drink or water); a cash bar is available for all other beverages.







Buffet Dinner Menu

Tri-Colored Tortilla Chips with Salsa Fresca Corona Ranch Salad Baby Greens Garnished with Feta Cheese, Roasted Red Peppers, Grape Tomatoes and Cucumbers served with Balsamic Vinaigrette Chicken Enchiladas laced with Cilantro Sour Cream Sonoran Grilled Salmon served with Pineapple Pico de Gallo Grilled Ancho Chili Flank Steak Topped with Onions and Red & Green Bell Peppers Poblano Chile Rice Black Beans served with Oaxaca Cheese Assorted Rolls and Butter Margarita Cheesecake Coffee / Tea Service

#### SCHOLARSHIPS, HONORS AND AWARDS

In keeping with the WMS' mission of providing education and opportunity, the following awards and scholarships will be presented during Tuesday's Honors and Awards Luncheon.

#### **SCHOLARSHIPS**

#### **Roy G. Post Foundation Scholarships**

The Roy G. Post Foundation is a non-profit corporation formed by his students, peers and protégés to provide scholarships to students to develop careers in the safe management of nuclear materials and to participate in the annual WM Symposium.

Students enrolled in secondary educational programs in technical or policy fields with the objective of contributing to the safe management of nuclear materials are eligible for these scholarships, awarded in memory of Dr. Roy G. Post. Dr. Post was the founding chief executive of WM Symposia, the sponsor of the annual international Waste Management conference.

The Scholarships and the Foundation carry on Dr. Post's vision of education in this field, to honor the Founder of the annual Waste Management Conferences. The Roy G. Post Foundation is a 501c3 tax-deductible Foundation dedicated to education in the safe management of nuclear material.

The Foundation is honored to announce the 2009 Roy G. Post Foundation Scholarship Receipients:

#### Joshua Jarrell

Joshua Jarrell attended Marcus High School in Flower Mound, TX, graduating in May 2002. In May 2006, he graduated with a Bachelors in Nuclear Engineering and a Minor in Mathematics from Texas A&M University. He has spent his summers working at Texas A&M working on efficient computational methods under the Undergraduate Summer Research Grant (USRG); interning at the Space Propulsion group at Knolls Atomic Power Laboratory (KAPL) and the Westinghouse Dallas office where he worked on the modeling of boron induced offset anomaly. That fall, he began working on his PhD at Texas A&M on the Naval Nuclear Propulsion Fellowship. The summer of 2007, he worked at Bettis Atomic Power Laboratory in the Shielding group. This past summer, he interned at KAPL in the Nuclear Methods group.

Joshua has finished all classes required for a PhD. He is researching hi PhD topic, *"Adaptive Angular Discretization Methods for Deterministic Neutral Particle Transport."* This topic addresses a more effective way to computationally model nuclear systems that have drastically different material properties in the system. As he continues his career, he has come to realize that more accurate, faster modeling of nuclear systems is desired in all sectors of the nuclear field. He hopes to graduate August of 2010 with his PhD and continue working on computational methods.

#### Haruko Murakami

Haruko Murakami is currently a PhD Candidate in Nuclear Engineering at the University of California Berkeley. She received her Bachelor's degree in Engineering from Kyoto University, Japan in 2003. Prior to joining UC Berkeley, she worked as a research intern at Schlumberger-Doll Research and the Argonne National Laboratory. She received her Master's degree in Nuclear Engineering in 2006, and the Jane Lewis Fellowship 2006-2008.

Her main research interests are probabilistic environmental risk assessment of nuclear related facilities, and the development of models to optimize site characterization strategies for the assessment and to evaluate engineering systems for the risk mitigation. They involve a wide range of scientific areas such as nuclear geophysical techniques, geostatistics, and stochastic hydrogeology. She has been involved in the assessment of the high-level radioactive waste repository in Japan and also in the Integrated Field Research Challenge (IFRC) project at the Hanford 300 area.

#### Rubina Rahman

Rubina Rahman completed her Bachelor of Science (BSc) and Master of Science (MSc) degrees in Physics from Jahangirnagar University, Bangladesh and stood first class position in both examinations. She completed her MSc thesis in the Environmental Radioactivity field. She began her career in 1997 as a Research Officer, working on Solar-home system design with an American Fulbright Fellow and in association with Grameen Shakti, a sister organization of Grameen Bank, Bangladesh for a year just before getting her MSc result. After that Rubina worked for a year in another renowned research organization, BCAS of Bangladesh, in the renewable energy sector. After that she joined as a Lecturer of Physics in two Universities of Bangladesh and taught BSc Honors students for one and half years.

#### SCHOLARSHIPS, HONORS AND AWARDS

She joined the Health Physics Division, Bangladesh Atomic Energy Commission as Scientific Officer in 2000 and now she is a Senior Scientific Officer and also an active member of environmental radioactivity monitoring group of the Division.

At present, Rubina is on study-leave and pursuing her PhD on Environmental Radioactivity from University of Liverpool, United Kingdom taking ORSAS and University of Liverpool International scholarships. The title of her PhD project is *"Potential Radioactivity Exposure and Health Impacts from Living near Sellafield-Contaminated Salt Marshes and Mudflats"*. The main objective of the study is to assess in detail the exposure and health impacts of living near Sellafield-contaminated salt marshes and mudflats with respect to potential remobilization of radionuclides as a consequence of climate change and sea-level rise.

#### Paul Romano

Paul completed his undergraduate education at Rensselaer Polytechnic Institute, earning Bachelor's degrees in Nuclear Engineering and Applied Mathematics. He is currently in his second year at the Massachusetts Institute of Technology pursuing a Ph.D. in Nuclear Science and Engineering specializing in Monte Carlo neutron transport methods. In addition to his studies at RPI and MIT, Paul has interned at the U.S. Nuclear Regulatory Commission in the Office of Nuclear Reactor Regulation and the Office of Nuclear Security and Incident Response as well as Knolls Atomic Power Laboratory.

Paul has been active in the American Nuclear Society, previously serving as Vice-President, Treasurer, and Webmaster of the student chapter at RPI and currently the Co-President of the student chapter at MIT. He has also been an advocate for nuclear engineering programs through his work with the Nuclear Engineering Student Delegation, a student group that meets with policymakers in Washington, D.C. each year. Paul hopes to continue researching computational methods for research physics in a position at a national laboratory or in academia following his graduation and aspires to become involved with national energy policy later in his career.

#### **Brooke Traynham**

Brooke's scientific interests are wide-ranging, but center on the interface between the physical and biological components of an ecosystem. While her early studies led her to oceanographic inquiries, she is now focused on terrestrial ecosystems that serve as long-term storage facilities for hazardous waste. She received a bachelor of science from Emory University with a major in Environmental Science and Sociology and went on to receive a master's degree in Earth and Environmental Sciences from Vanderbilt University. She is a SCUBA instructor and taught SCUBA in the PE department at Emory U.

She went on to become a scientific diver at the Darling Marine Center in Maine, concentrating on ecology and management of the American lobster and the green sea urchin throughout the Gulf of Maine. From there, she moved to Archbold Biological Station's MacArthur Research Center to work on a study of nutrient dynamics on a Florida cattle ranch. These early experiences gave her the opportunity to conduct field experiments and set up laboratory studies she helped prepare her for graduate research.

Brooke is in the final year of doctorate studies at Vanderbilt with a joint degree in Civil and Environmental Engineering and Earth and Environmental Science. Her current work focuses on the long-term performance of engineered barriers, specifically on the role of ecological processes on performance. She is interested in developing a model that incorporates dynamic interactions by ecological components, and hopes to bring a unique perspective to the challenges of long-term waste storage and monitoring.

#### Mitchell T. Young

Mitchell T. Young is a 21 year old undergraduate Nuclear Engineering student at Oregon State University. Born and raised in Seattle, WA, he initially became interested in nuclear technology while researching the subject for a high school chemistry project. Currently residing in Corvallis, OR, Mitchell has been working under Dr. Brian Woods on the Multi-Application Small Light Water Reactor (MASLWR) Project since the Sprint of 2008.

After attaining his undergraduate degree in Nuclear Engineering, he plans to pursue a Masters Degree with a focus in either reactor physics or fusion. Upon finishing his formal education, Mitchell aspires to be a researcher in the field of nuclear fusion power. It is his hope that developing such a technology would alleviate many of the waste management issues that we face today as a result of fission power generation.

#### SCHOLARSHIPS, HONORS AND AWARDS

Also to be presented at the luncheon:

## WM Symposia and James A. Glasgow Scholarship

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.

#### BEST PAPER, ORAL AND POSTER AWARD WINNERS 2008

#### **ORAL PRESENTATIONS**

#### "An Integrated Tool for Evaluating Pre-Closure Operational Performance of the Yucca Mountain Waste Management System"

Presented by **Leah Spradley**, Mark Abkowitz, James Clarke, Vanderbilt University (USA). Session 44, Abstract 8037. (Session Sponsor: Robin Sweeney).

#### Honorable Mention Oral Paper Presentation "Shielded Payload Containers will Enhance the Safety and Efficiency of DOE's Remote Handled Transuranic Waste Operations"

presented by Roger Nelson, US DOE (USA); Sean White, Washington Regulatory and Environmental Services (USA). Session 59, Abstract 8199. (Session Sponsor: Chuan-Fu Wu).

#### **POSTER PRESENTATIONS**

First Place – ANS Poster, Track 7. "Generating the Right PCB Data: Determination of Aroclors Versus PCB Congeners"- Abstract 8075. Jeannette Hyatt, Cliff Narquis, Andrea Prignano, Fluor Hanford (USA).

Second Place – ASME Poster, Track 5. **"Development of Tritium Storage and Transport Vessels"** - Abstract 8128. Seungwoo Paek, Min Soo Lee, KAERI (Republic of Korea).

#### Third Place – Track 8.

"Simulation and Optimization of Large Scale Subsurface Environmental Impacts; Optimal Investigations, Remedial Design and Long Term Monitoring" - Abstract 8330. Larry Deschaine, Science Applications International Corporation (USA).

#### AWARDS TO BE PRESENTED

Please join us for the Awards and Honors Luncheon on Tuesday, March 3 at 12:00 PM. The Award winners will be featured in the luncheon program distributed onsite.

#### WMS 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 first WMS PAC Award was given to Dr. Mort Wacks at WM'03, in recognition of his significant contributions in establishing and maintaining the Waste Management technical conference.

## 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.

Sandia has sponsored the Wendell D. Weart award for the last four years, and the awarded has been formally adopted by WMS with continued sponsorship by Sandia.

#### 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).

#### SPECIAL MEETINGS, TRAINING AND WORKSHOPS

#### SATURDAY, FEBRUARY 28, 2009 5:00 PM – 9:30 PM PROGRAM ADVISORY COMMITTEE MEETING

This pre-conference meeting will be held at the Hyatt Regency Phoenix. A separate invitation will be sent to all PAC members and volunteers, with their guests on the event details.

#### SUNDAY, MARCH 1, 2009

#### 9:00 AM – 5:00 PM NUCLEAR PROJECT MANAGEMENT - KEYS TO SUCCESS

This short course will focus on Project Management in the nuclear environment with special emphasis on keys to successful projects. In addition to recapping fundamentals of project management, the course will include discussion of how nuclear projects are different, why many projects fail, how to manage risks in projects, what are the keys to successful projects, and how one can use practical project management tools in the field.

The course agenda will cover the following topics:

- Project Management fundamentals and what is different in nuclear projects
- Managing nuclear safety
- Managing risks in projects- schedules, budgets, resources, and constraints
- Why projects fail and what are the keys to success
- Performance Management and Corrective Action.
- Practical tools for application in the field
- Case Histories Nuclear Projects: New Build Projects, Power Plant Modifications, Remediation & Waste Management, Decommissioning Projects

The course will be directed by Dr. Jas Devgun; Bernard Kelly, University of Manchester; Maria Lindberg, Studsvik; Keith Peecook, NASA and Stuart Walker, US EPA will also present.

The course is sponsored by WM Symposia as a service to the nuclear community. Onsite registration may be available, please check with the Registration Desk for more details. Registration Fee: \$195.00

#### SUNDAY, MARCH 1, 2009 CONTINUED 2:00 PM – 3:30 PM STUDENT ASSISTANT TRAINING SESSION

This pre-conference meeting will be held on level two of the PCC. All students scheduled as a Student Assistant for sessions should attend. For more information on volunteering as a Student Assistant during the conference, please see the Speaker & Co-Chair Check-In Desk.

#### 4:00 PM – 4:45 Pm VOLUNTEER & PROGRAM ADVISORY COMMITTEE (PAC) MEMBERS OPPORTUNITIES SESSION

Open to everyone interested in learning more about WM Symposia and the opportunities to volunteer at the annual conferences. The PAC helps create the technical program and assists onsite at the conference. We'll cover the opportunities to volunteer and what all is involved.

#### 5:00 PM - 8:00 PM WELCOME RECEPTION

Officially opening the conference and Exhibition Hall at the PCC Level Three. Come visit the more than 175 exhibitors in the WM2009 Exhibition and Marketplace and meet new and old friends. The Registration Desk is open from 1:00 PM on, so stop by and pick up your badge anytime before the reception starts. Light hors d'oeuvres will be served.

#### MONDAY, MARCH 2, 2009

#### 7:30 AM – 11:00 AM ASME RADWASTE SYSTEMS COMMITTEE MEETING

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

#### SPECIAL MEETINGS, TRAINING AND WORKSHOPS

#### MONDAY, MARCH 2, 2009 CONTINUED

8:00 AM – 10:00 AM WM2009 PLENARY SESSION

The WM2009 Plenary Session will feature world leaders speaking on the pressing issues being faced by Waste Management in 2009 and beyond.



**Gregory B. Jaczko** Commissioner US Nuclear Regulatory Commission



Inés R. Triay Principal Deputy Assistant Secretary US Department of Energy – Environmental Management



Bill Gallo President AREVA Federal Services LLC

Join your fellow delegates on level three of the PCC for Continental Breakfast before the program begins.

#### 4:30 PM – 6:00 PM INTERNATIONAL WELCOME RECEPTION

We are appreciative of our international delegates for their participation and contributions that make WM2009 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.

#### MONDAY, MARCH 2, 2009 CONTINUED

6:00 PM – 7:30 PM STUDENT AND YOUNG PROFESSIONALS NETWORKING RECEPTION

All students, young professionals and conference attendees looking to hire – plan to mix and mingle, 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 3, 2009

#### 4:30 PM to 6:00 PM BEST OF ARIZONA RECEPTION

Experience the Southwest - we'll highlight the State of Arizona, serving hors d'oeuvres from around this great state, and beverages including Margaritas.

#### 6:00 PM – 7:30 PM WOMEN OF WASTE MANAGEMENT: PANEL AND PROFESSIONAL NETWORKING RECEPTION

Women delegates - and anyone interested in opportunities for women in our industry – should attend the. The Panel will start 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. For more details on our speakers, please see the individual listing for WoWM.

#### 6:00 PM – 10:00 PM CORONA RANCH EVENT

Plan to join us for this great evening under the stars at Corona Ranch located next to South Mountain. Buses will pick up in front of the PCC on Third Street beginning at 6:00 PM so you'll have plenty of time to wrap up your day and change into comfortable clothes for a night out.

For more details on the event, please see the individual listing including the menu for the Corona Ranch event.

Be sure to bring a jacket as the event is an indoor/outdoor venue.

#### SPECIAL MEETINGS, TRAINING AND WORKSHOPS

#### THURSDAY, MARCH 5, 2009 10:30 AM – 2:00 PM WM2010 PROGRAM ADVISORY COMMITTEE MEETING AND LUNCHEON

This conference wrap-up meeting and planning for WM2010 will be held at the PCC. PAC Members will be sent a separate invitation and agenda. Lunch will be provided.

#### PRACTICAL RADIATION SAFETY TRAINING – REFRESHER ON THE BASICS AND ALL THE LATEST INFORMATION

This workshop has been canceled and will not be presented at WM2009.

#### **CONTRACTING OPPORTUNITIES SESSIONS**

WM2009 will be the place to hear all the latest contracting updates, with five special sessions dedicated to contracting opportunities. Contracting officers will present procurement plans and be available for questions. Here's your chance to hear the current information from around the world, all in one place, at one conference.

These sessions are open to everyone registered for WM2009, including exhibitors:

- Tuesday afternoon Session 38 Contracting Opportunities in the UK with the Nuclear Decommissioning Authority (NDA)
- Wednesday Morning Sessions 51 & 52 US DOE and DOE Contractor's Procurement and Contracting Opportunities
- Wednesday Afternoon Session 68B US DOE Oak Ridge Cleanup Plans and Contracting Opportunities: IFDP and ETTP
- Thursday Morning Session 79 Federal Government Contract "Capture" Workshop

#### **ADDITIONAL MEETINGS**

Additional Meetings will held in conjunction with WM2009 – EFCOG, US DOE and more – please check the signage onsite for more information on the room assignments for these side meetings.

#### WM2009 CORPORATE SPONSORS

WM Symposia thanks our 2009 Sponsors for their generous contributions.

#### **Gold Sponsors**











Silver Sponsors



#### **Bronze Sponsors**



#### **IFSOUP MEETING**

The International Forum on Sustainable Options for Uranium Production (IFSOUP) is holding a meeting during WM2009 on Tuesday, March 3, 2009. It will be facilitated by Rod Grebb and Michelle Rehmann.

During its first year, IFSOUP has held several meetings in the Americas and one in China, and has presented the IFSOUP mission, objectives and plans to the US Nuclear Regulatory Commission. IFSOUP has fostered fostering discussion for development of safe, environmentally protective, sustainable uranium production practices. IFSOUP continues to garner growing support of many involved in uranium matters.

IFSOUP serves as a focal point for industry, regulators, and NGOs to discuss relevant issues on environmental and social aspects of uranium production and to disseminate, by means of panels, workshops, and other means, good production practices. It also serves as a vehicle to lead industry, regulatory bodies, and NGOs to find consensus on mechanisms to assure the sustainability of uranium production. Topics will focus on current issues facing uranium mining and implementing sustainable mining practices.

IFSOUP fills gaps in scope of other initiatives, and in providing concrete guidance, focusing on development of technologies, so that operators would develop good operations – with a view that compliance with regulatory/safety standards would be a minimum requisite; and with the challenge being to do so in an economically feasible way.

The IFSOUP meeting will conclude with a discussion of key topics, conclusions, and plans for future gatherings. Meeting summaries will be prepared for participants. WM2009 registrants wishing to listen in on IFSOUP presentation sand panel discussions are welcomed and encouraged to do so. The preliminary agenda is shown below. A final agenda will be available at the WM2009 registration desk.

Start	End	Subject	Speaker
08:30	09:00	Registration, Coffee/Networking	•
09:00	09:15	Welcome - IFSOUP Overview, History, and Objectives	Michelle Rehmann, WM Symposium
		MORNING SESSION	
09:15	09:30	Basic Concepts of Sustainability	Caitlin Rood, Tetra Tech
09:35	09:50	Current Issues in Uranium Recovery	Rod Grebb, Tetra Tech
09:55	10:10	Update on NRC Uranium Recovery Program	Larry Camper, US NRC Division of Waste
			Management and Environmental Protection
10:15	10:45	Refreshment Break	
10:50	11:05	NRC Perspectives on Communicating with	Eliot Brenner
		Stakeholders outside of the Regulatory Field	US NRC Office of Public Affairs
11:10	11:25	NRC Congressional Affairs Perspectives on	Rebecca Schmidt, US NRC Office of
		Sustainable Uranium Recovery	Congressional Affairs
11:25	11:50	Discussion - Audience	All
11:50	13:40	Lunch Break	
		AFTERNOON SESSION	
13:40	13:55	Excess Uranium Stockpile Dispersion and its Effect	Mark Gilbertson, US DOE (invited)
		on Domestic Production	
14:00	14:15	Sustainable Uranium Production at a New	Patrick Wales, Virginia Uranium Inc.
		Site	
14:20	14:35	Native American Perspectives on Sustainable	Mervyn L. Tano, Esq., International Institute
		Uranium Mining and the Nuclear Fuel Cycle	for Indigenous Resource Management
14:40	14:55	Sustainability, Uranium, and Mining	Helen Neill, UNLV, Environmental Studies
15:00	15:30	Refreshment Break	
15:30	15:45	A Perspective on Sustainable Uranium	Alliyu Ismaeel Olaide and Kagimy Kanyike
		Mining in Africa	(invited)
15:50	16:05	Legacy Sites and Sustainability	John Dalton, Nuclear Decommissioning
			Authority, UK (invited)
16:10	16:30	Discussion – Audience	All
16:30	16:40	Summary of Meeting and Closing Remarks	Michelle Rehmann
16:40	16:50	Discussion – Audience	All

#### Preliminary Agenda and List of Speakers (as of January 30, 2009)

#### **GUEST TOURS AND PHOENIX AREA ACTIVITIES**

All tours depart from the lobby of the Hyatt Regency Phoenix. Transportation, guide, admission and bottled water are included. Boarding time is 15 minutes prior to scheduled departure. Be sure to pack a jacket, hat and your camera.

Due to limited space, tours may not be available onsite. Please check with the Registration Desk.

#### Saturday, February 28, 2009 Grand Canyon via Sedona and Navajo Reservation 6:00AM – 7:00PM \$160.00/pp onsite

Begin with a fully-narrated tour of the Sonoran Desert on the way to your first stop of the day --Sedona's colorful Red Rock country. You'll have time for a coffee break and a chance to get some photos of this inspiring area. Next, travel through scenic Oak Creek Canyon and the pine forests of Flagstaff before arriving at the South Rim of the Grand Canyon around lunch time. Here, you can drink in the boundless wonders of Grand Canyon from our favorite overlooks or take a short nature walk. We'll also tour the beautiful East Rim of the canyon and visit additional viewpoints along this 22-mile drive.

After we depart the Grand Canyon, we'll drive across the vast Navajo Indian Reservation, and make a stop at the Cameron Trading Post (with the Painted Desert as your backdrop) to shop for jewelry and crafts. We then start our return to the Valley of the Sun. A brief stop will be made for dinner before your return approximately 7PM. Meals on own.

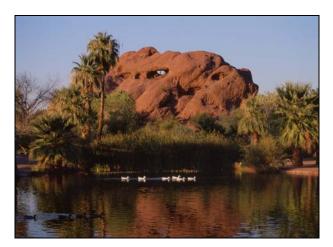
#### Monday, March 2, 2009 Sedona Red Rock Adventure 7:00AM – 5:00PM \$110.00/pp onsite

Sedona's colorful Red Rocks have long been an inspiration to artists, filmmakers and visitors. Begin with a stop at Montezuma's Castle, one of the bestpreserved prehistoric Indian cliff dwellings in North America.

Next, it's on to the beautiful Sedona area with a visit to the Chapel of the Holy Cross, set between two huge red sandstones. You'll then travel into the heart of Red Rock country in uptown Sedona to spend time browsing the many galleries and shops and have a bite to eat at one of many wonderful restaurants or cafes. Lunch on own.

# Tuesday, March 3, 2009Heard Museum with Lunch9:00AM – 1:00PM\$75.00/pp onsite

An excellent introduction to the Valley of the Sun! This tour provides a docent-guided tour of the world-famous Heard Museum. The Heard Museum's exhibit galleries feature a variety of historic, traditional and contemporary Native art and provide an intimate, first-person perspective enhanced by detailed explanation from a talented Las Guias tour guide. Lunch included.



# Wednesday, March 4, 2009Scottsdale Shop and Play9:30AM – 1:30PM\$65.00/pp onsite

Whether you are a serious shopper, love to browse the galleries, dine in a fine restaurant or unique al fresco cafe or just enjoy people watching, this is the trip for you! Spend the day at one of the area's hottest spots for shopping and dining, the Scottsdale Fashion Square. With over 225 upscale retailers, movie theatres and dining establishments, Fashion Square offers the best in shopping for bargain hunters to luxoholics. We'll include a special shopping bag filled with great discounts and special offers. Lunch on own.

#### **Downtown Phoenix Visitor Information Center**

Just across from the main entrance of the Hyatt Regency Phoenix, the Phoenix Convention & Visitors Bureau offers brochures, maps and personalized assistance to make your visit to Phoenix more enjoyable.

125 N. Second Street, Suite 120 Hours: M – F 8:00AM – 5:00PM (877) Call-PHX <u>visitors@visitphoenix.com</u>

#### WM2009 TECHNICAL PROGRAM SCHEDULE AT A GLANCE

Bit State         ANNOTATED SESSION TITLES (for full session title, please see individual listing)         Bit State         Bit Stat	1										_		1
I         WM2009 Plenary Session         ALL         8:00         3" FL.           2         Panel: Hot Topics in US DOE Environmental Management X         10:00         229 AB           3         Panel: The International Decommissioning Network         X         10:00         224B           4         Panel: The International Decommissioning Network         X         10:00         224A           5         Emerging Treatment Technologies for ILW and LLW         X         10:00         222B           6         ER Technical Challenge: Actinide Contamination in Soils         X         10:00         222B           7         US DOE Featured Site: Los Alamos National Laboratory         X         1:30         222C           8         Worldwide Radioactive WM - Challenges and Solutions         X         1:30         222B           9         Panel: US DOE - OCRWM Yucca Min - Canceled         X         1:30         222A B           10         Critical Issues in Yucca Mountain Transportation         X         1:30         229 AB           12         Selected Key Topics in US Commercial LLW Management         X         1:30         229 AB           12         Selected Key Topics in US Commercial LLW Management         X         1:30         229 AB           13         Pan	SESSION #		1: Crosscutting	2: HLW & TRU	3: L/ILW, NORM	4: Nuclear Power P			7: Environ. Rem.	8: Comm., E & T	Safety, S &	TIME	ROOM
2         Panel: Hot Topics in US DOE Environmental Management         X         I         10:00         229 AB           3         Panel: The International Decommissioning Network         X         I         10:00         224A           4         Panel: The International Decommissioning Network         X         I         10:00         224A           5         Emerging Treatment Technologies for ILW and LLW         X         I         10:00         222A           6         ER Technical Challenge: Actinide Contamination in Solis         X         I         10:00         222C           Monday PM – March 2, 2009           7         US DOE Featured Site: Los Alamos National Laboratory         X         I         1:30         222A           9         Panel: US DOE – OCRWM Vucca Mun - Canceled         X         I         1:30         222 AB           11         Hot Topics of US Commercial LLW Management         X         I         3:15         224A           12         Selected Key Topics in US Commercial LLW Management         X         I         3:15         224A           13         Panel: Mantaining World Class Safety During Change         I         X         3:15         224A           14         Panel: Mantaining VMid Concepts to Stakeholders <th></th> <th>Monday AM – Marc</th> <th>:h 2</th> <th>, 20</th> <th>09</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>		Monday AM – Marc	:h 2	, 20	09								
3         Panel: WM Challenges - A Worldwide Perspective         X         Image: Market and	1	WM2009 Plenary Session					ALL					8:00	3 <sup>rd</sup> FL
4         Panel: The International Decommissioning Network         X         1         10:00         224A           5         Emerging Treatment Technologies for ILW and LLW         X         10:00         222C           6         ER Technical Challenge: Actinide Contamination In Soils         X         10:00         222B           Wonday PM – March 2, 2009           7         US DOE Featured Site: Los Alamos National Laboratory         X         1:30         222C           8         Worldwide Radioactive WM – Challenges and Solutions         X         1:30         222A           9         Panel: US DOE – OCRWM Yucca Mm - Canceled         X         1:30         229 AB           11         Hot Topics of US Commercial LLW Management         X         1:316         224A           12         Selected Key Topics in US Commercial LLW Management         X         1:315         224A           13         Panel: Maintoining World Class Safety During Change         X         1:30         223           14         Panel: Maintoining World Class Safety During Change         X         1:30         221A           15         Engaging Potentially Affected Citizens         X         1:30         221A           15         D & D of Nuclear (Non-Power Generating) Facilities		Panel: Hot Topics in US DOE Environmental Management	Х									10:00	229 AB
5         Emerging Treatment Technologies for LIW and LLW         X         10:00         222C           6         ER Technical Challenge: Actinide Contamination in Soils         X         10:00         222B           Monday PM – March 2, 2009           7         US DOE Featured Site: Los Alamos National Laboratory         X         11:30         222C           8         Worldwide Radioactive WM – Challenges and Solutions         X         11:30         222R           9         Panel: US DOE – OCRWM Yucca Mtn - Canceled         X         11:30         222A           9         Panel: US DOE – OCRWM Yucca Mtn - Canceled         X         11:30         229 AB           10         Critical Issues in Yucca Mountain Transportation         X         11:30         229 AB           11         Hoit Topics of US Commercial LLW Management         X         11:30         229 AB           12         Panel: Radiological Risk Management - Canceled         X         11:30         223           14         Panel: Maintaining World Class Safety During Change         X         11:30         221           14         Panel: Maintaining World Class Safety During Change         X         11:30         221           15         Engaging Potentially Affected Clitzens         X <t< td=""><td>3</td><td>Panel: WM Challenges - A Worldwide Perspective</td><td>Х</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>10:00</td><td>224B</td></t<>	3	Panel: WM Challenges - A Worldwide Perspective	Х									10:00	224B
6         ER Technical Challenge: Actinide Contamination in Solts         X         10:00         222B           Monday PM – March 2, 2009           7         US DOE Featured Site: Los Alamos National Laboratory         X         1:30         222C           8         Worldwide Radioactive WM – Challenges and Solutions         X         1:30         222B           9         Panel: US DOE – OCRWM Yucca Mun - Canceled         X         1:31         229A           10         Critical Issues in Yucca Mountain Transportation         X         1:30         222B           11         Hot Topics of US Commercial LLW Management         X         1:31         229A           12         Selected Key Topics in US Commercial LLW Management         X         1:30         222A           13         Panel: Maintaining World Class Safety During Change         X         1:30         223A           14         Panel: Maintaining World Class Safety During Change         X         1:30         223A           15         Engaging Potentially Affected Clizens         X         1:30         223A           15         Engaging Potentially Microheepts in the UK         X         1:30         221C           16         Communicating WM Concepts to Stakeholders         X         1:30								Х					
Monday PM – March 2, 2009           7         US DOE Featured Site: Los Alamos National Laboratory         X         1:30         222C           8         Worldwide Radioactive WM – Challenges and Solutions         X         1:30         222C           9         Panel: US DOE – OCRWM Yucca Min - Canceled         X         1         1:30         222B           9         Panel: Us DOE – OCRWM Yucca Mun - Canceled         X         1         1:30         2229 AB           10         Critical Issues in Yucca Mountain Transportation         X         1:30         229 AB           11         Hot Topics of US Commercial LLW Management         X         1:30         229 AB           12         Selected Key Topics in US Commercial LLW Management         X         1:30         223           13         Panel: Radiological Risk Management - Canceled         X         1:30         223           14         Panel: Maintaining World Class Safety During Change         X         1:30         223           15         Engaging Potentially Affected Citizens         X         1:30         223           16         Communicating WM Concepts to Stakeholders         X         1:30         2216           16         D & D of Nuclear Non-Power Plants         X         1:30					Х								
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8       Worldwide Radioactive WM - Challenges and Solutions       X       1       1:30       2228         9       Panel: US DOE - OCRWM Yucca Mun - Canceled       X       1       1       29         10       Critical Issues in Yucca Mountain Transportation       X       1:30       229 AB         11       Hot Topics of US Commercial LLW Management       X       1:30       229 AB         12       Selected Key Topics in US Commercial LLW Management       X       1:30       229 AB         13       Panel: Radiological Risk Management - Canceled       X       3:15       224 A         14       Panel: Maintaining World Class Safety During Change       X       1:30       223         15       Engaging Potentially Affected Citizens       X       1:30       223         16       Communicating WM Concepts to Stakeholders       X       1:30       221A         18       D & D fouclear (Non-Power Generating) Facilities       X       1:30       221C         20       Progress in the Closure of Waste Storage Tanks/Facilities       X       1:30       221C         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       22 <sup>rd</sup> FL         22       Stater In A of Uranium Fuel Cycle Materials Management       X </td <td></td> <td></td> <td></td> <td>, 20</td> <td>09</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>				, 20	09								
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12       Selected Key Topics in US Commercial LLW Management       X       3:15       229 AB         13       Panel: Radiological Risk Management - Canceled       X       3:15       224 AB         14       Panel: Maintaining World Class Safety During Change       X       3:15       224 A         15       Engaging Potentially Affected Citizens       X       1:30       223         16       Communicating WM Concepts to Stakeholders       X       1:30       2224         17       D & D of Nuclear (Non-Power Generating) Facilities       X       1:30       222A         19       Lessons Learned in ER and WM Projects in the UK       X       1:30       221C         17       Fort End of Uranium Fuel Cycle Materials Management       X       1:30       221A         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       221A         221       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>nd</sup> FL         2223       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>21A</sup> 222       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>21A</sup> 224       Bustors: Industry Leaders of Tomorrow       X       8:30       224A <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Х</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							Х						
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15       Engaging Potentially Affected Citizens       X       1:30       223         16       Communicating WM Concepts to Stakeholders       X       3:15       223         17       D & D of Nuclear (Non-Power Generating) Facilities       X       1:30       222A         18       D & D of Nuclear (Non-Power Generating) Facilities       X       1:30       222A         18       D & D of Nuclear (Non-Power Generating) Facilities       X       1:30       221A         19       Lessons Learned in ER and WM Projects in the UK       X       1:30       221B         20       Progress in the Closure of Waste Storage Tanks/Facilities       X       1:30       221B         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       221A         22       Posters: HLW, SNF and Long-Lived Alpha/TRU Waste       X       1:30       22 <sup>enf</sup> FL         224       Statuent Posters: Industry Leaders of Tomorrow       X       1:30       224A         23       Panel: Emerging Issues with US DOE Prime Contractors       X       8:30       224A         24       US DOE Engineering and Tech Reducing Risk in HLW       X       8:30       223         21       Innovative Liquid and Gas Filtration Systems       X       18:30											V	0.45	00.44
16       Communicating WM Concepts to Stakeholders       X       3:15       223         17       D & D of Nuclear (Non-Power Generating) Facilities       X       1:30       222A         18       D & D of Nuclear (Non-Power Generating) Facilities       X       3:15       223A         18       D & D of Nuclear Power Plants       X       3:15       222A         19       Lessons Learned in ER and WM Projects in the UK       X       1:30       221C         20       Progress in the Closure of Waste Storage Tanks/Facilities       X       1:30       221B         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       221A         22       Posters: HLW, SNF and Long-Lived Alpha/TRU Waste       X       1:30       2 <sup>mo</sup> FL         22E       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>mo</sup> FL         23       Panel: Emerging Issues with US DOE Prime Contractors       X       8:30       224A         24       US DOE Engineering and Tech Reducing Risk in HLW       X       8:30       224A         25       HLW and SNF – Process, Technologies and Operations       X       8:30       222C         28       Programmatic, Reg. and Statutory Issues – L/ILW, NORM       X       8:30										V	Х		
17       D & D of Nuclear (Non-Power Generating) Facilities       X       1:30       222A         18       D & D of Nuclear Power Plants       X       3:15       222A         19       Lessons Learned in ER and WM Projects in the UK       X       1:30       221C         20       Progress in the Closure of Waste Storage Tanks/Facilities       X       1:30       221B         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       221A         22       Posters: HLW, SNF and Long-Lived Alpha/TRU Waste       X       1:30       2 <sup>m</sup> FL         22E       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>m</sup> FL         23       Panel: Emerging Issues with US DOE Prime Contractors       X       1       8:30       229A         24       US DOE Engineering and Tech Reducing Risk in HLW       X       8:30       224A         25       HLW and SNF – Process, Technologies and Operations       X       8:30       222C         28       Programmatic, Reg. and Statutory Issues – L/ILW, NORM       X       8:30       222A         29       D & D Technologies and Tactics       X       8:30       222E         29       D & D Technologies and Tactics       X       8:30       222E <td></td>													
18       D & D of Nuclear Power Plants       X       3:15       222A         19       Lessons Learned in ER and WM Projects in the UK       X       1:30       221C         20       Progress in the Closure of Waste Storage Tanks/Facilities       X       1:30       221B         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       221A         22       Posters: HLW, SNF and Long-Lived Alpha/TRU Waste       X       1:30       2 <sup>rdf</sup> FL         221       Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>rdf</sup> FL         224       VS DOE Engineering and Tech Reducing Risk in HLW       X       1       8:30       229A         24       US DOE Engineering and Tech Reducing Risk in HLW       X       1       8:30       224A         26       Status Plans at the US DOE Waste Isolation Pilot Plant       X       1       8:30       222A         27       Innovative Liquid and Gas Filtration Systems       X       1       8:30       222A         28       Programmatic, Reg. and Statutory Issues – L/ILW, NORM       X       10:15       222A         30       Waste Optimization/Minimization During D & D       X       10:15       222A         30       Waste Optimization/Minimizatio								V		X			
19       Lessons Learned in ER and WM Projects in the UK       X       1:30       221C         20       Progress in the Closure of Waste Storage Tanks/Facilities       X       1:30       221B         21       Front End of Uranium Fuel Cycle Materials Management       X       1:30       221B         22       Posters: HLW, SNF and Long-Lived Alpha/TRU Waste       X       1:30       221A         22E       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>nd</sup> FL         Tuesday AM – March 3, 2009         23       Panel: Emerging Issues with US DOE Prime Contractors       X       1:30       224A         24       US DOE Engineering and Tech Reducing Risk in HLW       X       1       8:30       224A         26       Status Plans at the US DOE Waste Isolation Pilot Plant       X       1       8:30       222A         29       D & D Technologies and Tactics       X       1       8:30       222A         30       Waste Optimization/Minimization During D & D       X       1       8:30       222A         30       Waste Optimization is R and Site Closure       X       8:30       221A         31       Technical Innovations in ER and Site Closure       X       8:30       221B													
20         Progress in the Closure of Waste Storage Tanks/Facilities         X         I         1:30         221B           21         Front End of Uranium Fuel Cycle Materials Management         X         I         1:30         221A           22         Posters: HLW, SNF and Long-Lived Alpha/TRU Waste         X         I         1:30         2 <sup>nd</sup> FL           22E         Student Posters: Industry Leaders of Tomorrow         X         I         1:30         2 <sup>nd</sup> FL           223         Panel: Emerging Issues with US DOE Prime Contractors         X         I         8:30         229A           24         US DOE Engineering and Tech Reducing Risk in HLW         X         I         8:30         224A           26         Status Plans at the US DOE Waste Isolation Pilot Plant         X         I         8:30         223           27         Innovative Liquid and Gas Filtration Systems         X         I         8:30         222C           28         Programmatic, Reg. and Statutory Issues – L/ILW, NORM         X         I         8:30         222A           30         Waste Optimization/Minimization During D & D         X         I         8:30         221C           28         Programmatic, Reg. and Site Closure         X         8:30         221R								^	V				
21Front End of Uranium Fuel Cycle Materials ManagementXI1:30221A22Posters: HLW, SNF and Long-Lived Alpha/TRU WasteXI1:302 <sup>nd</sup> FL22EStudent Posters: Industry Leaders of TomorrowXII:302 <sup>nd</sup> FL22EStudent Posters: Industry Leaders of TomorrowXII:302 <sup>nd</sup> FL23Panel: Emerging Issues with US DOE Prime ContractorsXI8:30229A24US DOE Engineering and Tech Reducing Risk in HLWXI8:30224B25HLW and SNF – Process, Technologies and OperationsXI8:3022327Innovative Liquid and Gas Filtration SystemsXI8:30222C28Programmatic, Reg. and Statutory Issues – L/ILW, NORMXI8:30222A30Waste Optimization/Minimization During D & DXI8:30222A31Technical Innovative Liquid and Gas Filtration SystemsXI8:30221A33RDD/IRD/WMD: Detection, Response, Decont. and RecovX8:30221A34Panel: Students / Engrs – Are Companies Even Listening?XI8:30221B35Panel: Intl Youth Conference / Young ProfessionalsXI1:30229B36Posters: L/ILW, NORM & TENORM; Nuclear Power PlantsXI1:30229B37Panel: US DOE – EFCOG Knowledge Portal ReviewXI1:30229B38Panel: US DOE – EFCOG Knowl				X					^				
22       Posters: HLW, SNF and Long-Lived Alpha/TRU Waste       X       1:30       2 <sup>nd</sup> FL         22E       Student Posters: Industry Leaders of Tomorrow       X       1:30       2 <sup>nd</sup> FL         Tuesday AM – March 3, 2009         23       Panel: Emerging Issues with US DOE Prime Contractors       X       8:30       229A         24       US DOE Engineering and Tech Reducing Risk in HLW       X       8:30       224B         25       HLW and SNF – Process, Technologies and Operations       X       8:30       223         27       Innovative Liquid and Gas Filtration Systems       X       8:30       222         28       Programmatic, Reg. and Statutory Issues – L/ILW, NORM       X       8:30       222A         29       D & D Technologies and Tactics       X       8:30       222A         30       Waste Optimization/Minimization During D & D       X       8:30       222A         30       Waste Optimization/Minimization During D & D       X       8:30       221A         31       Technical Innovations in ER and Site Closure       X       8:30       221A         32       Technical Topics in Radioactive Materials Packaging       X       8:30       221B         33       RDD/IRD/WMD: Detection, Response, Decont.				~	X								
22E       Student Posters: Industry Leaders of Tomorrow       X       Image: Contractors       <				x	~								2 <sup>nd</sup> Fl
Tuesday AM – March 3, 200923Panel: Emerging Issues with US DOE Prime ContractorsX8:30229A24US DOE Engineering and Tech Reducing Risk in HLWX8:30224B25HLW and SNF – Process, Technologies and OperationsX8:30224A26Status Plans at the US DOE Waste Isolation Pilot PlantX8:3022327Innovative Liquid and Gas Filtration SystemsX8:30222C28Programmatic, Reg. and Statutory Issues – L/ILW, NORMX8:30222A30Waste Optimization/Minimization During D & DX8:30222A31Technical Innovations in ER and Site ClosureX8:30221C32Technical Innovations in ER and Site ClosureX8:30221R33RDD/IRD/WMD: Detection, Response, Decont. and RecovX8:30221A34Panel: Students / Engrs – Are Companies Even Listening?X8:30229B35Panel: Intl Youth Conference / Young ProfessionalsX8:30229B36Posters: L/ILW, NORM & TENORM; Nuclear Power PlantsX8:30229B37Panel: US DOE – EFCOG Knowledge Portal ReviewX1:30229A39Museum and Visitors Centers: Tools for CommunicationX3:15229A40Panel: International SNF Recycling – Status AssessmentX1:30224A41Panel: NPP Waste Mgmt – LLW Disposal IssuesX1:30 </td <td></td> <td></td> <td>x</td> <td>~</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2<sup>nd</sup> Fl</td>			x	~									2 <sup>nd</sup> Fl
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38Panel: Contracting Opportunities in the UK with the NDAXImage: Second			1 1	9									
39Museum and Visitors Centers: Tools for CommunicationX3:15229A40Panel: International SNF Recycling – Status AssessmentX1:30224B41Panel: NPP Waste Mgmt – LLW Disposal IssuesX1:30224A												1:30	
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42   Panel: NPP Waste Mgmt – LLW Processor Issues   X   3:15 224A													
	42	Panel: NPP Waste Mgmt – LLW Processor Issues				Х						3:15	224A

#### WM2009 TECHNICAL PROGRAM SCHEDULE AT A GLANCE

													-
SESSION #	<b>ANNOTATED SESSION TITLES</b> (for full session title, please see individual listing)	1: Crosscutting	2: HLW & TRU	3: L/ILW, NORM	4: Nuclear Power P	5: Package/Trans.	6: Deco & Decom	7: Environ. Rem.	8: Comm., E & T	9: Safety, S & S	TIME	ROOM	
	Tuesday PM – March 3, 2009	Col	ntin	ued									
43	Technologies/Approaches Applied to Problematic TRU		Х	404					1		1:30	223	
44	Vitrification Experience and Glass Characterization		X								1:30	222C	-
45	Performance of Disposal Systems, Facilities, Sites - LLW		~	Х							1:30	222B	1
46	Waste Characterization for LWL, ILW, MW			X							1:30	222A	1
47	The International Decommissioning Network of the IAEA						Х				1:30	221C	
48	Transportation of Spent Fuel and Radioactive Material					Х	,,				1:30	221B	
49	ER Post Closure Challenges and Stewardship/LM							Х			1:30	221A	
50	Posters: ER, Security, Safety & Safeguards; Comm.							Х	Х	Х	1:30	2 <sup>nd</sup> FL	
	Wednesday AM - March	4. 2	009										
51	Panel: US DOE Procurement/Contracting Opportunities	X									8:30	229A	
52	Panel: US DOE Contractors' Contracting Opportunities	Х									10:15	229A	AN
53	Panel: Disposition of DOE High-Activity Mixed Waste			Х							8:30	224B	ЗR
54	Panel: US NRC vs. US EPA Disposal Sites for VLLW			Х							10:15	224B	8
55	Operating Experience and Progress for HLW and SNF		Х								8:30	224A	WM2009 TECHNICAL PROGRAN
56	TRU Small Quantity Sites – Plans for Utilizing INL		Х								8:30	223	
57	Yucca Mountain: Perspectives from Around the Mountain		Х								10:15	223	CA
58	Technical Innovations in HLW Treatment – W. Chemistry		Х								8:30	222C	NIC
59	Strategic Options for Spent Fuel Management		Х								10:15	222C	王
60	Operating Exp. in the Treatment and Storage of LLW			Х							8:30	222B	ЕC
61	Worldwide WM Regulatory/Oversight Crosscutting Update	Х									8:30	222A	Τ
62	NPP Solid, Liquid and Wet Waste Management				Х						8:30	229B	306
63	Panel: Progress in Radwaste Systems for New NPP				Х						10:15	229B	120
64	D & D of US DOE Facilities						Х				8:30	221C	٨N
65	ER Decisions - Modeling and Risk Evaluation							Х			8:30	221B	$^{\prime}$
66	US DOE, Site Specific and Citizens Advisory Board								Х		8:30	221A	-
67	Posters: Crosscutting; Packaging & Transportation; D & D	Х				Х	Х				8:30	2 <sup>nd</sup> FL	
	Wednesday PM - March	4, 2	009										
68A	Closing Panel: The Intl Decommissioning Network						Х				1:30	229A	
68B	Panel: US DOE Oak Ridge Contracting Opportunities						Х				1:30	224B	
69	Innovations in HLW Treatment – Tech. Demonstration		Х								1:30	224A	_
70	URLs and Demonstration Facilities: An Update		Х								1:30	223	_
71	US FUSRAP and US Army Corp of Engineers Projects							Х			1:30	222C	_
72	Innovative Field Monitoring for ER							Х			1:30	222B	-
73	LLW Certification, Acceptance and Disposal	V		Х							1:30	222A	-
74	Performance Assessment of Geological Disposal Systems	X									1:30	221C	4
75	Project Mgmt Improvements – Scope, Cost, Schedule	Х							v		3:15	221C	-
76	Technical Comm.: Critical to Nuclear Renaissance					V			Х		1:30	221B	4
77	Challenges of Secure and Economical RM Transport	X				Х					1:30	221A 2 <sup>nd</sup> FL	4
78	Posters: Emerging Issues and New Developments			100							1:30	Z FL	
70	Thursday AM - Mar	1	<b>5</b> , 20	109					-		0.00	00.4.1	-
79	Federal Government Contract "Capture" Workshop	Х		V							8:30	224A	-
80	Panel: Waste Management EFCOG Review	<u> </u>		Х			V				8:30	222C	4
81	Panel: D & D EFCOG Review						Х				8:30	222B	_

Subject to Change, please check signage and the Errata Sheet onsite for updates.

#### MONDAY, MARCH 2, 2009 – AM SESSIONS

Presenters are highlighted in **BOLD** 

8:00 am -	Session 1	Room
10:00 pm		3rd Floor D&E

#### Panel: WM2009 Symposium Plenary

Co-Chairs: Fred Sheil, Sellafield Ltd. (UK); James Gallagher, Gallagher Consulting (USA) Sponsor and Panel Reporter: Fred Sheil Organizers: James Gallagher, Fred Sheil

The WM2009 Plenary Session will feature **Gregory B. Jaczko**, Commissioner – US NRC; **Inés R. Triay**, Principal Deputy Assistant Secretary for the US DOE – EM; and **Bill Gallo**, President, AREVA Federal Services LLC.

These plenary speakers will be addressing the pressing issues facing Radioactive Waste Management in 2009 and beyond.

10:00 am -	Session 2	Room
12:00 pm		229A&B

## 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: Linda Ulland

This panel will feature senior US DOE managers speaking on the pressing issues facing 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: John (Jack) Surash, Deputy Assistant Secretary (DAS) - Acquisition & Project Mgnt., US DOE; Mark Gilbertson, Director, Basic & Applied Research, US DOE; Dae Chung, DAS - Safety Mgnt. and Operations, US DOE; Frank Marcinowski, DAS - Regulatory Compliance, US DOE; James Fiore, Director, Office of Management Analysis, US DOE; Merle Sykes, DAS, US DOE; and **Diane Cochran**, DAS Human Capital & Business Services, US DOE (USA)

10:00 am -	Session 3	Room
12:00 pm		224B

## Panel: Waste Management Challenges and the Nuclear Renaissance - A Worldwide Perspective

Co-Chairs: John Mathieson, NDA (UK); Mark Matthews, Matthews, Inc (USA) Sponsor, Organizer, and Panel Reporter: John Mathieson

This panel will focus on the potential nuclear renaissance in a number of countries. Associated with new nuclear construction is the requirement for front-end fuel supply and back-end waste management. There are once-through and recycling options to be considered, with key factors relating to sustainability, environmental health and safety. Following short introductions by the panelists, there will be open discussion; audience participation will be encouraged.

Panelists: Larry Camper, Director, Division of WM & EP, NRC (USA); Marie-Claude Dupuis, CEO, ANDRA (France); Prof. Gordon Sibiya, Consultant (South Africa) and Adrian Simper, Strategy Director, NDA; Rosie Mathisen, North of England LLC/Cumbria (UK)

10:00 am –	Session 4	Room
12:00 pm		224A

## Panel: The International Decommissioning Network of the IAEA

Co-Chairs: Michele Laraia, IAEA (Austria); Andrew Szilagyi, US DOE (USA) Sponsor and Panel Reporter: Michele Laraia Organizers: Michele Laraia, Albert Freitag

This panel will introduce the International Decommissioning Network (IDN) and the related sessions throughout the week. The successful launch at the IAEA General Conference in September 2007 of the IDN marked a quantum leap in IAEA's traditional approach to international co-operation in nuclear decommissioning. The IDN was established to promote the vision of prompt, open, and efficient worldwide sharing of practical and effective decommissioning experience leading to safe, economic and timely dismantlement of disused nuclear facilities. Panelists: Vladimir Michal, Senior Scientist, VUJE, Inc. (*Slovak Republic*); Michele Laraia, Senior Officer, IAEA (*Austria*); Andrew Szilagyi, D&D Program Leader, US DOE (*USA*); Josef Podlaha, Nuclear Research Institute Rez PLC (*Czech Republic*); Lucien Pillette-Cousin, AREVA (*France*); and William Murphie, US DOE (*USA*)

10:05 The History and Evolution of the IAEA Technical Assistance Programme on Decommissioning and the International Decommissioning Network as its Highest Point - 9000

Michele Laraia, IAEA (Austria)

10:30 Role of Slovakia within the IAEA Decommissioning Related Activities -9031 Vladimir Michal, Marian Stubna, VUJE, Inc.

(The Slovak Republic)

10:00 am –	Session 5	Room
12:00 pm		222C

#### Emerging Treatment Technologies for Intermediate and Low-Level Radioactive Waste

Co-Chairs: Paul Macbeth, US DOE - Richland Operations Office; Colleen Owens, Los Alamos Technical Associates (USA) Sponsor, Organizer, and Paper Reviewer: Paul Macbeth

- 10:05 Unique Remote-Handled Waste Management Issues at Oak Ridge National Laboratory - 9140 Bradley Patton, Robert Jubin, Sharon Robinson, ORNL; S.D. Van Hoesen, UT-Battelle, LLC (USA)
- 10:30 Solidification Tests for LLW Sludges at ORNL - 9161 Paul Taylor, ORNL; Jody Bickford, Martin Foote, MSE Technology Applications, Inc; Dale Jessop, Don Gagel, EnergX LLC (USA)
- 10:55 Demonstration of Electrochemical Oxidation of Oils Using Boron-Doped Diamond Electrodes and its Potential Role in the Disposal of Radioactively Contaminated Waste Lubricants - 9035 Geoffrey Taylor, Anthony Newey, AWE; Christopher Bates, AWE PLC; Colin King, Keith Dawes, Windsor Scientific Ltd (UK)

11:20 Recycling Caustic from LAW Stream using NaSICON Membrane based Electrochemical Technology - 9127 Shekar Balagopal, Marc Flinders, Sai Bhavaraju, Devin Clay, Karl Schatten, Ceramatec Inc. (USA)

10:00 am –	Session 6	Room
12:00 pm		222B

#### ER Technical Challenge: Actinide Contamination in Soils

Co-Chairs: John Lehr, NNSA, US DOE; Erich Evered, Consultant (USA) Sponsor and Organizer: Erich Evered Paper Reviewer: Del Baird

10:05 Radiological Closure of a Nuclear Weapon Accident Site with Plutonium Contamination - 9479 Joseph Weismann, John Hackett, Daniel Caputo, Mark Tepperman, Cabrera Services, Inc.; Steven Rademacher, US Air Force Safety Center (USA)

10:30 Development and Implementation of a Low-Cost Ex-Situ Soil Clean-Up Method for Actinide Removal at the Atomic Weapons Establishment Aldermaston Site, UK - 9376 *Kieran Agnew*, University of Brighton -AWE; Andrew Cundy, School of Environmental and Technology; Ian Croudace, Phillip Warwick, University of Southampton; Phillip Purdie, AWE – Environmental Projects Group; Laurence Hopkins, University of Brighton (UK)

10:55 Determining Corrective Action Boundaries at Atmospheric Nuclear Release Sites - 9230 Raymond Kidman, Patrick Matthews,

Stoller-Navarro; Harold Anagnostopoulos, Stoller-Navarro Joint Venture; John Jones, Robert Boehlecke, NNSA/NSO; Jeff MacDougall, Nevada Division of Environmental Protection (USA)

#### March 2, 2009 Monday PM

1:30 pm –	Session 7	Room
5:00 pm		222C

US DOE Featured Site: Los Alamos National Laboratory - Accomplishments and Challenges in Environmental Cleanup and Waste Disposition

Co-Chairs: George Rael, US DOE NNSA LASO; Erich Evered, Consultant (USA) Sponsor and Paper Reviewer: Erich Evered Organizer: Susan Stiger

- 1:35 Cleanup at LANL The Challenges 9493 Susan Stiger, Bechtel; George Rael, US DOE NNSA LASO; Kenneth Hargis, Michael J. Graham, LANL (USA)
- 2:00 Preparations for Retrieval of Buried Waste at Material Disposal Area B - 9494 Allan B. Chaloupka, C. William Criswell, Mitchell Goldberg, LANL; David R. Gregory, US DOE LASO; Edwin Worth, US DOE (USA)

2:25 Accelerating the Disposition of Transuranic Waste from Los Alamos National Laboratory - 9495 Mark Shepard, James Blankenhorn, Los Alamos National Laboratory; Susan Stiger, Bechtel; Dave Moody, US DOE - Carlsbad Field Office; George Rael, US DOE NNSA LASO (USA)

- 2:50 Evaluating Off-Site Disposal of Low-Level Waste at LANL - 9498 Kenneth Hargis, Sean French, LANL; Julien Boyance, North Wind Inc. (USA)
- 3:20 Waste Processing Cost Recovery at Los Alamos National Laboratory - Analysis and Recommendations - 9008 Steven Booth, LANL (USA)
- 3:45 Groundwater Contamination at LANL Fact and Fiction - 9496 Danny Katzman, Paul R. Huber, LANL (USA)
- 4:10 Surface Water Contamination and Los Alamos National Laboratory's Holistic Approach to Mitigation - 9497 Danny Katzman, Steve J. Veenis, Steve L. Reneau, LANL (USA)
- 4:35 The RACER (Risk Analysis, Communication, Evaluation, and Reduction) Stakeholder Environmental Data Transparency Project for Los Alamos National Laboratory - 9499

Alison M. Dorries, Craig F. Eberhart, J. Christopher Echohawk, LANL; Nancy Werdel, US DOE (USA)

1:30 pm –	Session 8	Room
5:00 pm		222B

## Worldwide Radioactive WM - Challenges and Solutions

Co-Chairs: Mark Matthews, Matthews, Inc (USA); Gérald Ouzounian, ANDRA (France) Sponsor: John Mathieson Organizers: John Mathieson, William Gregory Paper Reviewer: Mark Matthews

- 1:35 A Single Global Small-User Nuclear Repository - 9085 James Conca, New Mexico State University; Judith Wright, UFA Ventures, Inc (USA)
- 2:00 Update on the Radioactive Waste Position in the UK - 9455 John Dalton, Bruce McKirdy, NDA; Robert Jackson, DEFRA (UK)
- 2:25 Evolving an Integrated Waste Strategy for the UK Magnox Sites - 9038 *Michelle Grist, Halcrow Group Limited (UK)*
- 2:50 New Policy Developments and Challenges for Radioactive Waste Management in South Africa - 9549 Gordon Sibiya, Eskom Consultant on Radwaste Management (Republic of South Africa)
- **3:20 Status of Equipment Development for a High-Level Waste Repository in Germany** -9552

Wilhelm Bollingerfehr, Wolfgang Filbert, **Enrique Biurrun**, DBE Technology Gmbh (Germany)

#### Session 9

#### Panel: US DOE - OCRWM Yucca Mountain Update: High Level Waste and Spent Nuclear Fuel Disposal

Due to US budget constraints, this panel will not be presented at WM2009 but deferred until next year.

3:15 pm –	Session 10	Room
5:00 pm		224B

## Critical Issues in Yucca Mountain Transportation

Co-Chairs: Richard Yoshimura, Sandia National Laboratory; Ricardo Martinez, Project Enhancement Corporation (USA) Sponsor: Robin Sweeney Organizer and Paper Reviewer: Alexander Thrower

- **3:20 Elements of the Office of Civilian Radioactive Waste Management's National Transportation Plan** - 9338 *Frank Moussa, US DOE; Jennifer Patric, Peter Bolton, Booz Allen Hamilton (USA)*
- 3:45 Transportation of High-Level Radioactive Waste and Spent Nuclear Fuel: Proposed Rail Inspection Program to Promote Reciprocity - 9397

*Tim Runyon*, Illinois Emergency Management Agency; Patrick Edwards, Pennsylvania Public Utility Commission (USA)

4:10 Improving the Way State and Federal Co-Regulators Communicate about Risk - 9400 *Earl Easton*, US NRC; Lisa Janairo, The Council of State Governments, Midwestern Office (USA)

1:30 pm –	Session 11	Room
3:15 pm		229A&B

## Panel: Hot Topics of US Commercial LLW Management

Co-Chairs: Marcia Marr, Central Midwest Compact Commission; Kathryn Haynes, Southeast Compact Commission (USA) Sponsor: Leif G. Eriksson Organizers: Linda Beach, Marcia Marr Paper Reviewer: Linda Beach

This panel will focus on the emerging issues in lowlevel radioactive waste management in the US from the perspective of six active members of the Low-Level Radioactive Waste Forum, Inc. State, LLW-compact, federal and industry views will be shared on topics such as licensing of new disposal capacity in Texas, plans for modifying existing disposal operations in Barnwell, South Carolina, efforts to minimize generation and provide for long-term storage of Class B and C waste lacking access to disposal, and disposal of NORM and TENORM at hazardous waste facilities.

Panelists: **Bill House**, EnergySolutions; **Larry McNamara**, Perma Fix Environmental Services; **Susan Jablonski**, State of Texas; **Lisa Edwards**, NEI/EPRI; **Dan Schultzheisz**, EPA; and **Larry Goldstein**, Northwest Compact

3:15 pm –	Session 12	Room
5:00 pm		229A&B

## Selected Key Topics in US Commercial LLW Management

Co-Chairs: Kathryn Haynes, Southeast Compact Commission; Linda Beach, Waste Control Specialists LLC (USA) Sponsor: Kathryn Haynes Organizers: Linda Beach, Colleen Owens Paper Reviewer: Linda Beach

3:20 Presentation of the Richard S. Hodes, M.D. Honor Lecture Award for 2009 by Michael Mobley, Southeast Compact Commission for LLW (USA) to Susan Jablonski, Director, Radioactive Materials Division, Texas Commission on Environmental Quality (USA)

- 3:35 Presentation of the 2009 Richard S. Hodes, M.D. Honor Lecture: Challenges and Lessons Learned in Low-Level Radioactive Waste Management and Disposal in the Texas Compact – 9280 Susan Jablonski, Texas Commission on Environmental Quality (USA)
- 4:10 Strategic Assessment of NRC's Low-Level Radioactive Waste Program - An Update -9205

James Kennedy, US NRC (USA)

4:35 WCS Receives a License for Two New LLW-Disposal Facilities in Texas - WCS' Path to National LLW Management Solutions - 9306 Rodney Baltzer, William Dornsife, Waste Control Specialists LLC (USA)

#### Session 13

#### Panel: Radiological Risk Management

Due to US budget constraints, this panel will not be presented at WM2009 but deferred until next year.

3:15 pm –	Session 14	Room
5:00 pm		224A

## Panel: Maintaining World Class Safety During Times of Change

Co-Chairs: Anthony Umek, Fluor Government Group; Pete Knollmeyer, Fluor Hanford (USA) Sponsor, Organizer and Panel Reporter: Judith Connell

This panel will focus on sharing lessons learned in improving worker safety. Topics will include implementing the new requirements stipulated in 10CFR851, the US DOE's Worker Safety and Health Program; sharing US DOE and contractor experience with the mentoring that is conducted as part of US DOE's Voluntary Protection Program; and an in-depth exchange of ideas on electrical security index developed by EFCOG. The new contract awards across the US DOE Complex have required seamless - and often short - handoffs between contractors. While discrete deliverables with accompanying schedules are relatively easy to identify and transition, safety can be elusive, yet an essential aspect that could easily be sacrificed without the proper attention. Change causes stress and uncertainty, which are often displayed as inattention to detail and can result in on-the-job injuries. Contractors who have been on both the giving and receiving ends of these transitions will share their experiences in keeping workers focused on safety as they weather the changes associated with contract transitions.

Panelists: Kathy McCarty, Director, US DOE; Dave Brockman, Manager, US DOE-RL; Jeff Allison, US DOE Savannah River; John Lehew, President, CH2M HILL Plateau Remediation Company; Leo Sain, URS Washington Division; Anthony Umek, Vice President, ESH&Q, Fluor Government Group; and Pete Knollmeyer, Fluor Hanford (USA)

1:30 pm –	Session 15	Room
3:15 pm		223

#### **Engaging Potentially Affected Citizens**

Co-Chairs: Margaret MacDonell, Argonne National Laboratory; Dale Bignell, Washington Closure Hanford (USA) Sponsor: Margaret MacDonell Organizers: Margaret MacDonell, Tjalle Vandergraaf Paper Reviewer: Margaret MacDonell

- 1:35 Using Health-Based Fact Sheets as a Communication Tool and Resource for Contaminated Facilities - 9352 *R. Douglas Hildebrand*, US DOE; Margaret MacDonell, John Peterson, ANL (USA); Lynne Haroun, Environ (USA)
- 2:00 That Every Country in the World had a Town Like Carlsbad New Mexico - A Review of the Place that Accepts Nuclear Waste - 9084 Chad A. Twitchell, Greg Roselle, SNL (USA)
- 2:25 US EPA Superfund Program's Policy for Community Involvement at Radioactively Contaminated Sites - 9244 Stuart Walker, Karen Martin, US EPA (USA)
- 2:50 The Changing Role of Native Americans and Stakeholders in Decisions Concerning Nuclear Facilities - 9412 Joanna Burger, Rutgers University- Division of Life Sciences; Michael Gochfeld, Consortium for Risk Evaluation with Stakeholder Participation; Charles Powers, David Kosson, CRESP / Vanderbilt University (USA)

3:15 pm –	Session 16	Room
5:00 pm		223

## Communicating Waste Management Concepts to Stakeholders

Co-Chairs: Tjalle Vandergraaf, Providence College (Canada); Leonel Lagos, Florida International University/Applied Research Center (USA) Sponsor: Tjalle Vandergraaf Organizers: Tjalle Vandergraaf, Leonel Lagos Paper Reviewer: Dale Bignell

#### 3:20 Key Components of Waste Control Specialists LLC Public Outreach Program -9028

*William Lindquist*, Waste Control Specialists LLC (USA)

- 3:45 Development of the Coles Hill Uranium Deposit with Sustainability as a Cornerstone - 9441 *Patrick Wales, Virginia Uranium, Inc.; Caitlin Rood, Tetra Tech, Inc. (USA)*
- 4:10 The General Case Integrated Waste Algorithm, a Universal Model for Decommissioning - 9195 Bernard Kelly, Andrew J. Lowe, University of Manchester; Paul Mort, Sellafield LTD (UK)
- 4:35 The GeoPolitics of Energy: Engaging the Public and Policymakers – 9557 James Conca, New Mexico State University; Judith Wright, UFA Ventures, Inc (USA)

1:30 pm –	Session 17	Room
3:15 pm		222A

#### D & D of Nuclear (Non-Power Generating) Facilities

Co-Chairs: Fred Sheil, Sellafield Ltd. (UK); J. Rick Dearholt, CDM (USA) Sponsor and Organizer: Fred Sheil Paper Reviewer: J. Rick Dearholt

- 1:35 Setting up a Decommissioning Scenario, Methodology and Tools Developed - 9194 Olivier Vougny, Frederic Pradoura, SGN AREVA (France)
- 2:00 EBR-II Primary Tank Wash-Water Alternatives Evaluation - 9431 *Rick Demmer, John Heintzelman, Leah Squires, Richard Meservey, INL (USA)*
- 2:25 Decommissioning of the Former German Reprocessing Site WAK - Status of Vitrification Plant and Dismantling of the HLLW Storage Tanks - 9023 Joachim Fleisch, Martin Weishaupt, WAK GmbH; Guenther Roth, FZK GmbH; Wolfgang Pfeifer, Wolfgang Gruenewald, Forschungszentrum Karlsruhe (Germany)
- 2:50 The End of the Line, Preparing the Main Plant Process Building for Final Demolition at the West Valley Demonstration Project -9256

Geoffrey Gorsuch, Daniel Sullivan, US DOE (USA); David Kurasch, Mark Hackett, Laurene Rowell, West Valley Nuclear Services Co. (USA)

3:15 pm – 5:00 pm	Session 18	Room 222A		
D & D of Nucle	ear Power Plants			
Jas Devgun, S Sponsor: Jas D Organizers: All	Co-Chairs: Mark Lesinski, Magnox South Ltd (UK); Jas Devgun, Sargent & Lundy, LLC (USA) Sponsor: Jas Devgun Organizers: Albert Freitag, Bernard Poncet Paper Reviewer: Bernard Poncet			
<ul> <li>3:20 End of Lifecycle Issues for Reactors Yet to be Built - 9041 Jas Devgun, Sargent &amp; Lundy, LLC (USA)</li> <li>3:45 Barsebäck NPP in Sweden- Transition to Decommissioning Socio-Economic Aspects of Decommissioning - What Did We Achieve During the Transition, 1997- 2008 - 9092 Håkan Lorentz, Barsebäck Kraft AB (Sweden)</li> <li>4:10 International Cooperation for the Dismantling of Chooz A Reactor Pressure Vessel - 9087 Jean-Jacques Grenouillet, EDF (France); Edward Posivak, WMG, Inc. (USA)</li> <li>4:35 Strategic Options for the Management of Waste Irradiated Graphite - 9456 Anthony Banford, Prof Harry Eccles, David N. Ross NNL (UK)</li> </ul>				
1:30 pm – 5:00 pm	Session 19	Room 221C		
Lessons Learned in Environmental Remediation and Waste Management Projects in the UK				
Co-Chairs: Cathy Hickey, URS Washington Division (USA); Gerry McGill, AMEC Nuclear M&O (UK) Sponsor: Frank Winter Organizers: Angie Jones, Mike Pearl Paper Reviewer: Cathy Hickey				

1:35 Remediation of Irradiated Fuel Fragments Buried Offshore at Dounreay, Scotland, UK - 9204 Joseph Toole, WorleyParsons; Jim Cassidy, Fathoms LTD (UK)

2:00 Management of Ground and Groundwater Contamination on a Compact Site Constrained by Ongoing Activities. - 9073 *Katherine Eilbeck*, Phil Reeve, Sellafield Ltd (UK)

- 2:25 Practical Experience with Remediation of a Former Active Handling Building Site in the UK - 9058 Jack Armitage, Rowland Cornell, Nuvia Limited; Andy Staples, UKAEA (UK)
- 2:50 Experience with Stabilization of SGHWR Sludge in a Commercial Plant in the UK -9044

*Madoc Hagan*, Rowland Cornell, Brian Riley, Nuvia Limited; Bryan Ware, UKAEA (UK)

- 3:20 Challenge of Replacing Obsolete Equipment and Systems on Brownfield Sites - 9077 Stephen Teasdale, Aker Solutions (UK)
- 3:45 Assessment of the Impact of Radioactive Disposals and Discharges from the UK Low Level Waste Repository on the Ecosystem - 9051 Candida Lean, Nicholas Barber, Simon Kwong, NNL (UK)
- 4:10 Remediation of Kiritimati Island and the Challenges of Hazardous Waste Disposal to the UK from the Central Pacific - 9526 *Robert Kerr, Safety & Ecology Corporation Ltd (UK)*

1:30 pm –	Session 20	Room
5:00 pm		221B

## Progress Worldwide in the Closure of Waste Storage Tanks and Facilities

Co-Chairs: Keith Quigley, Washington River Protection Solutions ; Sherri Ross, US DOE (USA) Sponsor: Jeffery Lyon Organizers: Jeffery Lyon, Harry Babad Paper Reviewer: Harry Babad

- 1:35 Changing the Safety Culture in Hanford Tank Farms - 9211 *Mike Berriochoa*, CH2M HILL; Louis Alcala, Washington River Protection Solutions (USA)
- 2:00 Assessing Confidence in Performance Assessments Using an Evidence Support Logic Methodology: An Application of TESLA - 9484 *Michael Egan, Alan Paulley, Quintessa, Ltd. (UK); Linda Lehman, John Lowe, CH2M HILL Plateau Remediation Company; Elizabeth Rochette, Washington State Department of Ecology; Steve Baker, INTERA Incorporated (USA);*

- 2:25 Structural Integrity of Single Shell Tanks at Hanford - 9491 *Michael Rinker*, Siva Pilli, Naveen Karri, John Deibler, Kenneth Johnson, James Holbery, David Hurley, Dennis Mullen, PNNL (USA)
- 2:50 Characterization of Solids in Residual Wastes from Single Shell Tanks at the Hanford Site, Washington, USA - 9277 Kenneth Krupka, Kirk Cantrell, Todd Schaef, Bruce Arey, William Deutsch, Michael Lindberg, PNNL; Steve Heald, ANL (USA)
- 3:20 Contaminant Release from Residual Waste in Single Shell Tanks at the Hanford Site, Washington, USA - 9276 Kirk Cantrell, William Deutsch, Kenneth Krupka, Michael Lindberg, PNNL (USA)
- 3:45 Removing Sludge Heels from Savannah River Site Waste Tanks by Oxalic Acid Dissolution - 9120 *Michael Poirier*, David Herman, Fernando Fondeur, Michael Hay, John Pareizs, Kim Crapse, Bruce Wiersma, Thomas Peters, SRNL; George Thaxton, WSRC; Samuel Fink, Savannah River Nuclear Solutions (USA)
- 4:10 Enhanced Chemical Cleaning: A New Process for Chemically Cleaning Savannah River Waste Tanks - 9100 Ray Beatty, AREVA; Paul Wojtaszek, AREVA Federal Services, LLC; John Remark, Dennis Jones, AREVA NP Inc.; Neil Davis, Renee Spires, Edward Ketusky, WSRC (USA)
- 44:35 Tank Closure Progress at the Department of Energy's Idaho National Engineering Laboratory Tank Farm Facility – 9554 Steve Butterworth, CH2M-WG Idaho, LLC, Mark R. Shaw, US DOE

1:30 pm –	Session 21	Room
5:00 pm		221A

## Front End of the Uranium Fuel Cycle, NORM and Byproducts Materials Management

Co-Chairs: Michelle Rehmann, Tetra Tech, Inc.; Steven Brown, SHB, Inc. (USA) Sponsor: Steven Brown Organizers: Michelle Rehmann, Larry Camper Paper Reviewer: Steven Brown 1:35 The Uranium Industry and the Protest Movements - 9539 Gerd Wiatzka, Leo Lowe, Douglas Chambers, Grant Feasby, SENES Consultants (Canada)

2:00 Emerging Trends in the Nuclear Fuel Cycle: Implications for Waste Management - 9247

Leah Spradley, Larry Camper, US NRC; Michelle Rehmann, Tetra Tech, Inc. (USA)

2:25 What's New - Guidelines, Networks and Approaches for Modern Uranium Recovery - 9432

Michelle Rehmann, Tetra Tech, Inc. (USA)

- 2:50 The Uranium Recovery Industry and the Current Nuclear Renaissance - A Health Physicists Perspective - 9040 Steven Brown, SHB, Inc. (USA)
- 3:20 Some Thoughts after the Inaugural Meeting of the International Forum on Sustainable Options for Uranium Production - 9022 Mervyn Tano, International Institute for Indigenous Resources Mgmt (USA)
- 3:45 Phosphate Rocks: Sustainable Secondary Source for Uranium and their Agricultural Impact - 9481

**David LeMone,** Philip Goodell, Arthur H. Harris, University of Texas at El Paso; John Winston, Radiological Physics, Inc (USA)

- 4:10 Milestones Preceding the May 2008 Licensing of Byproduct Material Disposal in Texas - 9307 *William Dornsife, Jeffrey Skov, Waste Control Specialists, LLC (USA)*
- 4:35 Verification of Gamma Radiation Survey of Uranium Mine Remediation - 9537 Ron Stager, SENES Consultants Ltd. (Canada)

1:30 pm - Poster Session 22 Room 5:30 pm 2nd Floor

Posters: HLW, SNF & Long Lived Alpha - A-D Student Posters - E

Topic A: Process Developments in HLW, SNF and Long-Lived Alpha/TRU Waste

Co-Chairs: Paul Murray, AREVA; Leif Eriksson, Consultant (USA) Sponsor and Organizer: Leif Eriksson Paper Reviewer: Paul Murray

- A.1 Optimization of the Retrieval of Waste from Hanford Tank S-109 through Numerical Modeling - 9459 *Romani Patel*, David Roelant, Florida International University / Applied Research Center; Avani Mulchandani, Georgio Tachiev, Florida International University (USA)
- A.2 Adsorption and Elution Behavior of Cesium and Rubidium on Ammonium Tungstophosphate (AWP)-CaALG Alginate Microcapsules - 9180

**Yan Wu**, Chuanpin Lee, Hitoshi Mimura, Yuichi Niibori, Tohoku University; Isao Yamagishi, Shinichi Koyama, Masaki Ozawa, JAEA (Japan)

- A.3 Steam Reforming Technology Demonstration for the Destruction of Organics on Actual US DOE Savannah River Site Tank 48H Waste - 9138 *Paul Burket*, Gene Daniel, Carol Jantzen, Charles Nash, Charles Crawford, Allan Barnes, Michael Williams, SRNL (USA)
- A.4 Status of Chemical Cleaning of Waste Tanks at the Savannah River Site-F Tank Farm Closure Project - 9114 George Thaxton, G.B. Clendenen, Willie Gordon, WSRC; Michael Poirier, SRNL; Samuel Fink, Savannah River Nuclear Solutions (USA)
- A.5 Technology Needs and Status on Closure of US DOE Radioactive Waste Tank Ancillary Systems - 9312 Heather Burns, Sharon Marra, Christine Langton, WSRC (USA)

# Topic B: Technology Developments in HLW, SNF and Long-Lived Alpha/TRU Waste

Co-Chairs: Paul Murray, AREVA; Leif Eriksson, Consultant (USA) Sponsor, Organizer and Paper Reviewer: Paul Murray

- B.1 Channeling for Monitoring the Radiation Damage in High-Level Nuclear Waste Containers: A New Method - 9007 Mukhtar Ahmed Rana, PINSTECH (Pakistan)
- B.2 Testing of a Rotary Microfilter for Hanford Applications - 9121 Michael Poirier, David Herman, David Stefanko, SRNL; Samuel Fink, Savannah River Nuclear Solutions (USA)

- B.3 Demonstrated Operation of Chlorine Contained Waste Incineration System for Transuranic Contaminated Wastes - 9181 Yuichi Shibata, Masanori Tamura, Izumi limura, Kazuya Usui, JAEA (Japan)
- B.4 Technical Performance Capability of Fourier Transform Profilometry for Quantitative Waste Volume Determination under Hanford Tank Conditions - 9333 David Monts, Ping-Rey Jang, Zhiling Long, O. Perry Norton, Walter P. Okhuysen, Yi Su, Mississippi State University; Charles Waggoner, Institute for Clean Energy Technology (USA)
- B.5 Development of Remote Hanford Connector Gasket Replacement Tooling for the Savannah River Site's Defense Waste Processing Facility - 9457 Daniel Krementz, Jeffrey T. Coughlin, Michael J. Dalmaso, Robert B. Milling, SRNL; James Gee, Brian Metzger, WSRC (USA)
- B.6 Evaluation of Innovative High Level Waste Pipeline Unplugging Technologies - 9477 Seckin Gokaltun, Dwayne McDaniel, Amer Awwad, Florida International University (USA); Jose Varona, Romani Patel, David Roelant, Florida International University / Applied Research Center (USA)
- B.7 Two-zone Sub-critical Reactor Driven by a High-intensity Neutron Generator as a Research Facility for the Nuclear Waste Transmutation - 9519

**Volodymyr Gulik**, Kyiv Institute for Nuclear Research; Volodymyr Pavlovych, Institute for Nuclear Research of the National Academy of Science of Ukraine; Volodymyr Babenko, Kyiv Bogolyubov Institute for Theoretical Physics (Ukraine)

# Topic C: Matrices, Glass Formulating in HLW, SNF and Long-Lived Alpha/TRU Waste

Co-Chairs: Dirk Gombert, INL (USA); Keith Miller, NNL (UK) Sponsor, Organizer and Paper Reviewer: Keith Miller

- C.1 Formation of Ruthenium Dioxide during Vitrification of HLW, and It's Effect on Leachability of the Glass - 9032 Youichi Enokida, Kayo Sawada, Nagoya University (Japan)
- C.2 3-D Thermal, Hydrodynamic and Magnetic Modeling of Elaboration of Glass by

Induction in Cold Crucible - 9033 Eric Chauvin, AREVA NC; Emilien Sauvage, Patrice Brun, CEA (France)

- C.3 Radiation-Induced Fluidity and Glass-Liquid Transition in Irradiated Amorphous Materials - 9082 *Michael Ojovan*, University of Sheffield (UK)
- C.4 Corrosion Resistance of Murataite-Based Ceramics Containing Simulated Actinide/Rare Earth Fraction of High Level Waste - 9299

**Sergey Stefanovsky**, Galina Varlakova, Olga Burlaka, Olga I. Stefanovsky, SIA Radon; Boris Nikonov, Sergey Yudintsev, Institute of Geology of Ore Deposits (Russia)

C.5 Mechanisms of Phase Formation in the Vitrification of High-Ferrous Savannah River Site SB2 HLW Sludge Surrogate -9300

> **Olga I. Stefanovsky**, Sergey Stefanovsky, SIA Radon; Andey Akatov, Institute of Technology (Russia); James Marra, SRNL (USA)

- C.6 Matrices for 129l Immobilization 9303 Yury Pokhitonov, Khlopin Radium Institute (Russia)
- C.7 Sinterization of Niobium and Iron Phosphate Glasses for Uranium Silicide Immobilization - 9345 Jose Martinelli, Nuclear Energy Research Institute; Diego Russo, CNEA (Argentina); L. Ghussn, UFSCar (Brazil)

# Topic D: Migration & Waste Management in HLW, SNF and Long-Lived Alpha/TRU Waste

Co-Chairs: Dirk Gombert, INL (USA); Keith Miller, NNL (UK) Sponsor and Organizer: Keith Miller Paper Reviewer: Gérald Ouzounian

- D.1 A Review of Tc Geochemistry: The Behavior of an Artificial Element in the Natural Environment - 9384 Jonathan Icenhower, Nikolla Qafoku, John Zachara, Dawn Wellman, Wayne Martin, PNNL (USA)
- D.2 Micro-Flow Channel Probe for Geological Environmental Diagnosis - New Integrated Device for In-situ Measurement of Diffusivity and Sorption Coefficient in Rock Matrix - 9294 Kenji Noshita, Hitachi, Ltd., Energy and

Environmental Systems Laboratory; Takuma Yoshida, Hitachi-GE Nuclear Energy, Ltd.; Toshiaki Ohe, Tokai University; Shinya Nagasaki, The University of Tokyo; Katsuto Futakuchi, Dia Consultants Ltd.; Kenji Amano, JAEA (Japan)

- D.3 Design of an Interim Storage Facility for the CEA Long-Lived Medium, High-Level and Irradiating Waste - 9209 Jean-Michel Bart, Carole Doutreluingne, Jean Pierre Robin, CEA (France)
- D.4 Nuclear Materials Characterization in the Materials and Fuels Complex Analytical Hot Cells - 9275 *Rick Demmer*, Simeon Thompson, Idaho National Laboratory (USA)
- D.5 Life Estimation of High Level Waste Tank Steel Savannah River Site Closure Performance Assessment - 9310 Karthik Subramanian, Bruce Wiersma, Stephen Harris, SRNL (USA)

Topic E: Student Poster Session, The Next Generation - Industry Leaders of Tomorrow

Co-Chairs: David LeMone, University of Texas at El Paso; Leah Spradley, US NRC (USA) Sponsor and Organizer: Michelle Rehmann

E.1 Removal of Radionuclides and Fission Products from Spent Nuclear Fuel using Sulfate Reducing Bacteria: Feasibility Study - 9273

**Nonhlanhla Ngwenya**, Evans Chirwa, University of Pretoria (Republic of South Africa)

- E.2 Testing of Puncture-Resistant Material for Protection of Beta Scintillation Detectors - 9176 *Ramon A. Colon Mendoza, (DOE Fellow) Florida International University/Applied Research Center (USA)*
- E.3 Using New Porous Nano Composites for Photocatalytic Water Decontamination - 9281 *Maryam Zarei, University of Texas at El Paso (USA)*
- E.4 Mercury Removal from East Fork Poplar Creek Using Chemical Reduction and Volatilization - 9520 Jose Vasquez, (DOE Fellow), Florida Int. University/Applied Research Center (USA)
- E.5 Waste Treatment Plant (WTP),

Automated Operation Control via PLC for PEP. - 9530 Serkan Akar, (DOE Fellow), Florida Int. University/Applied Research Center (USA)

E.6 The Effect of Ultrasound in Dislodging Radioactive Waste from DOE Pipelines -9534

**Denisse Aranda**, (DOE Fellow), Florida Int. University/Applied Research Center (USA)

- E.7 Selective Separation of Cs by Ammonium Molybdophosphate-Loaded Silica Gels - 9538 Yusuke Endo, Yan Wu, Hitoshi Mimura, Yuichi Niibori, Tohoku University; Isao Yamagishi, Shinichi Koyama, Masaki Ozawa, JAEA (Japan)
- E.8 Investigation of Effects of pH and Temperature on the Carbonate Promoted Dissolution of Meta-Autunite -9543

**Ravi Gudavalli**, Florida International University/Applied Research Center (USA)

- E.9 Coal-Bed Methane Produced Water Treatment - 9545 *Amy Pahmer, (DOE Fellow), Florida Int. University/Applied Research Center (USA)*
- E.10 Treatment of Electric Arc Furnace Dust (EAFD) by Cement Solidification/Stabilisation (S/S) Using Sustainable Alternative Binders - 9546 Beste Cubukcuoglu, University of Surrey (UK)
- E.11 SHS Production of Nitride Nuclear Fuels Using Surrogate Materials - 9547 Collin Donohoue, Colorado School of Mines (USA)
- E.12 Caustic Dissolution of Chromium in Underground Storage Tanks at Hanford Site - 9548 Alexander Henao, (DOE Fellow), Florida Int. University/Applied Research Center

(USA)

- E.13 Terrestrial Radioactivity and Dose Calculation to the Public: The Case of the United States - 9551 *Merlin Ngachin*, (DOE Fellow), Florida Int. University/Applied Research Center (USA)
- E.14 Thermodynamic Equilibrium Modeling of Mercury Speciation in the Environment – 9555 Amaury Betancourt, (DOE Fellow) Florida Int. University/Applied Research Center (USA)

### MARCH 3, 2009 TUESDAY AM

8:30 am –	Session 23	Room
12:00 pm		229A

## Panel: Emerging Issues with US DOE Prime Contractors

Co-Chairs: Judith Connell, Fluor Hanford, Inc.; George Jackson, Fluor Government Group (USA) Sponsor and Panel Reporter: Judith Connell Organizers: Judith Connell, George Jackson

This panel will feature senior executives from the major US DOE sites addressing issues in the US DOE waste and environmental cleanup program. Existing or emerging issues or challenges within the prime contractor community as well as "self funding" the transformation of a project/site will be discussed. The US DOE's Performance Evaluations Plans and their affect on contractors being able to earn stretch fee will be discussed, as will the impact of different contracting models on the successful integration of work scope across multiple contractors.

Panelists: John Lehew, President, CH2M HILL Plateau Remediation Company; Chuck Spencer, President, Washington Closure Hanford; Greg Meyer, President, B&W PANTEX; Jeffrey Mousseau, Bechtel BWXT Idaho, LLC; Paul H. Divjak, Bechtel Jacobs; and Charles Munns, Savannah River Nuclear Solutions (USA)

8:30 am –	Session 24	Room
12:00 pm		224B

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

Co-Chairs: Steve Krahn, US DOE; Kurt Gerdes, US DOE (USA) Sponsor: Tom Brouns Organizers: Kurt Gerdes, Steve Krahn Paper Reviewer: Harry Babad

8:35 Reducing Technical Risk in the Environmental Management Program -9463 Kurt Gerdes, Steve Krahn, Mark Gilbertson, US DOE (USA)

#### 9:00 Scientific Opportunities to Reduce Risk in Nuclear Process Science - 9279 Baul Brodt & Felmy, Phillip Gauglitz, Adam

**Paul Bredt**, A. Felmy, Phillip Gauglitz, Adam Poloski, John Vienna, PNNL; Steve Krahn, Nicholas Machara, US DOE; Michael McIlwain, INL; Bruce Moyer, ORNL; Karthik Subramanian, William Wilmarth, David Hobbs, SRNL (USA)

9:25 The Role of the Office of Waste Processing in Reducing Technical Risk -9464

Steve Krahn, Kurt Gerdes, US DOE (USA)

9:50 The US DOE Office of Environmental Management International Cooperative Program: Current Status and Plans for Expansion - 9203

Kurt Gerdes, **Ana Han**, US DOE; James Marra, Kevin Fox, Gerald Jannik, Eduardo Farfan, Micahel Smith, David Peeler SRNL; Jay Roach, INL; Dong-Sang Kim, Batelle-Pacific Northwest Division (USA); Albert Aloy, Khlopin Radium Institute; Sergey Stefanovsky, SIA Radon (Russia); Mikhail Bondarkov, International Radioecology Laboratory (Ukraine); Cheon-Woo Kim, NETEC (Korea)

10:20 Risk Reduction through Use of External Technical Reviews, Technology Readiness Assessments and Technical Risk Ratings - 9174 Steven Schneider, Kurt Gerdes, US DOE; Michael Cercy, Savannah River Nuclear

Michael Cercy, Savannah River Nuclear Solutions (USA)

- 10:45 Advanced Remediation Technologies -9442 Gary Peterson, Steve Krahn, US DOE (USA)
- 11:10 Office of Environmental Management (EM) Federal Technical/Safety Authority -9467

**Dae Chung**, Chip Lagdon, Joseph Arcano, US DOE; Zack Smith, Michael Mikolanis, US DOE Savannah River Operations Office (USA)

#### 11:35 Office of Deactivation and Decommissioning and Facility Engineering Multi-Year Program Plan -9471

**Yvette Collazo**, US DOE - Savannah River Operations; Andrew Szilagyi, US DOE; Paula Kirk, ORNL (USA)

8:30 am –	Session 25	Room
12:00 pm		224A

## HLW and SNF - Processes, Technologies and Operations

Co-Chairs: Remi Bera, AREVA; Harry Harmon, Senior Consultant (USA) Sponsor: Tom Brouns Organizers: Sal Golub, Remi Bera Paper Reviewer: Remi Bera

- 8:35 CETE R&D at Oak Ridge National Laboratory Supporting Management of Nuclear Waste - 9227 Robert Jubin, Emory Collins, Kevin Felker, Barry Spencer, Jeffery Binder, ORNL (USA)
- 9:00 Treatment and Disposal of Process Wastes Arising from the Recycle of Spent Nuclear Fuel in the USA - 9094 Stuart Arm, EnergySolutions (USA); Ed Butcher, NNL (UK)
- 9:25 INRA Integrated Fuel Recycling Facility Solid Waste Management - 9468 Gerald H. Senentz, AREVA; Francois Drain, SGN; Catherine Veyer, Consultant (France); Paul Murray, Remi Bera, AREVA; Fredric Bailly, AREVA NC Inc.; James Angelos, URS Corporation (USA); Toshiyuki Zama, JNFL (Japan);
- 9:50 AFCI Coupled End-to-End Research, Development and Demonstration Project: Integrated Off-Gas Treatment System Design and Initial Performance - 9226 Dan Ramey, Barry Spencer, Bradley Patton, Robert Jubin, ORNL (USA)
- 10:20 Development of a Crossflow Filter to Remove Solids from Radioactive Liquid Waste: Comparison of Test Data with Operating Experience - 9119 Michael Poirier, David Herman, SRNL; Julius Lacerna, Samuel Fink, Savannah River Nuclear Solutions (USA)
- 10:45 Highly Selective Removal of Cesium and Strontium Utilizing a New Class of Inorganic Ion Specific Media - 9267 Mark Denton, Kurion, Inc.; Mercouri Kanatzidis, Manolis Manos, Northwestern University (USA)
- 11:10 Technical Approach for the Development of a Near Tank Cesium Removal Process -9143

*Terry Sams*, Parsons Infrastructure and Technology; Dean Kurath, David Blanchard,

Battelle Pacific Northwest Division; Chester Miller, US DOE (USA)

11:35 Qualification of a Vitrified High Level Waste Product to Support Used Nuclear Fuel Recycling in the US - 9474 Fredric Bailly, AREVA NC Inc.; Denis Strachan, PNNL; Paul Murray, AREVA (USA); Gerald H. Senentz, AREVA; Catherine Veyer, Consultant (France)

8:30 am –	Session 26	Room
12:00 pm		223

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

Co-Chairs: Roger Nelson, US DOE – Carlsbad Field Office; Chuan-Fu Wu, US DOE (USA) Sponsor: Chuan-Fu Wu Organizer and Paper Reviewer: Roger Nelson

- 8:35 Summarizing Ten Years Operating the Waste Isolation Pilot Plant - 9501 - 9501 Dave Moody, Roger Nelson US DOE -Carlsbad Field Office (USA)
- 9:00 WIPP's Hazardous Waste Facility Permit Renewal Application - 9101 William Most, Washington Regulatory and Environmental Services; Robert Kehrman, URS Corporation (USA)
- 9:25 WIPP Hazardous Waste Facility Permit 2009 Update - 9167 Miriam Whatley, M. Whatley Environmental LLC; Dave Streng, Robert Kehrman, URS Corporation (USA)
- 9:50 New Payload Initiatives for Shipments to WIPP Will Expand US DOE's Ability to Dispose of Transuranic Waste - 9063 Roger Nelson, US DOE; Sean White, URS Corporation (USA)
- 10:20 Evolution of a Waste Information System -9541 David Speed, Washington TRU Solutions (USA)
- 10:45 Lessons Learned When Integrating Remote Handled and Contact Handled Transuranic Waste into a Comprehensive Documented Safety Analysis and Technical Safety Requirement - 9423 Jon Ousley, Navarro Research and Engineering, Inc.; Donna Busche, Washington TRU Solutions; Gary Scott, US DOE - Carlsbad Field Office (USA)

) 8:30 aı 12:00 إ		11:35 T Room 9 222C E
	tive Liquid and Gas Filtration Sys clear Industry	stems in 8:30 am – 12:30 pm
Energy MicroF Sponso Organi	airs: Charles Waggoner, Institute for Technology (USA); Chris Chadwick iltrex (UK) or: David Eaton zers: Chris Chadwick, Duane Adam Reviewer: Charles Waggoner	son son co-Chairs: Hannover
8:35	Development of AG-1 Section Media Filters - 9061 Duane Adamson, SRNL; Charle Waggoner, Institute for Clean En	Organizers es Paper Rev bergy
9:00	Technology (USA) Porous Metal Filters for Gas an Liquid Applications in the Nuc Industry – 9556 Kenneth Rubow, Mott Corporat (USA)	lear - 91 <sup>°</sup> Sha
9:25	Examining Design Factors for and Effective Hydrogen Vents Waste Packages - 9248 Bob Herrmann, MicroFiltrex (US	for Was
9:50	Self Cleaning HEPA Filtration Interrupting Process Flow - 90 Martin Wylde, MicroFiltrex (UK)	without Con 54 of W Dav
10:20	Factors Influencing HEPA Filte Performance - 9060 Charles Waggoner, Institute for Energy Technology (USA); Mich Parsons, Mississippi State Unive Institute for Clean Energy Techn (USA)	Clean 9:50 The ael Low ersity, Neg ology Issu
10:45	High Permeability Crossflow F Systems for Low Cost, Minimu Liquid Waste Volume Reduction Equipment Compared and Cor with Evaporation as a Final Se Treatment - 9550 Chris Chadwick, MicroFiltrex (U	Im Size Kuga on Rad ntrasted 10:20 Bes paration Con Dep
11:10	Crossflow Ultrafilter Module D and Flush Testing for the Hanf Waste Treatment and Immobili Plant - Lessons Learned in De Crossflow Filters - 9511	raining Sco ford Stev ization Mich

Paul Townson, EnergySolutions; Phil Brackenbury, Bechtel National Inc (USA)

11:35 The Development of Microporous Metal - Ceramic Membrane Filters – 9250 Bob Herrmann, Microfiltrex (USA)

8:30 am –	Session 28	Room
12:30 pm		222B

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

Co-Chairs: Gabriele Bandt, TÜV NORD EnSys Hannover (Germany); Virgene Mulligan, American Radiation Services, Inc (USA) Sponsor: Gabriele Bandt Organizers: David Eaton, Gabriele Bandt Paper Reviewer: Larry Camper

8:35 Waste Management Systems for the 21st Century at Oak Ridge National Laboratory - 9112 Sharon Robinson, Robert Jubin, Bradley

Patton, ORNL; S.D. Van Hoesen, UT-Battelle, LLC (USA)

- 9:00 The National Low Level Radioactive Waste Act: Success or Failure - 9006 *Richard Paton, Retired (USA)*
- 9:25 Risk-informed Analytical Approaches to Concentration Averaging for the Purpose of Waste Classification - 9199 David Esh, Karen Pinkston, Cynthia Barr, A. Christianne Ridge, Anna Bradford, US NRC (USA)
- 9:50 The German Final Repository Konrad for Low and Intermediate Level Waste with Negligible Heat Generation - Water Law Issues - 9381 Wilma Bootsch, Detlef Gründler, Institute for

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

10:20 Best in Class Project Management and Contract Management Initiative at the Department of Energy's Office of Environmental Management - 9540 Scott Van Camp, US DOE; Jeremy Stevenson, U.S. Army Corps of Engineers; Michael Deiters, Project Time & Cost (USA)

- **10:45 Depleted Uranium Classification** 9321 Priya Yadav, **David Esh,** Anna Bradford, US NRC (USA)
- 11:10 Development of a Comprehensive Radioactive Waste Management Program in the Kingdom of Morocco - 9266 Abderrahim Bouhi, CNESTEN (Morocco); Robert Fischer, LLNL (USA)
- 11:35 Disposal Concepts and Characteristics of Existing and Potential Low-Level Waste Repositories - 9076 Peter Johnson, LANL/New Mexico Institute of Mining and Technology; John Zarling, LANL (USA)

8:30 am –	Session 29	Room
10:15 am		222A

### D & D Technologies and Tactics

Co-Chairs: Rick Demmer, INL (USA); Mark Lyons, Studsvik, UK Ltd. (UK) Sponsor and Paper Reviewer: Rick Demmer Organizers: Rick Demmer, Detlef Schmidt

#### 8:35 D&D Toolbox Project - Technology Demonstration of Fixatives Applied to Hot Cell Facilities via Remote Sprayer Platforms - 9370

Leonel Lagos, Peggy Shoffner, Giancarlo Pena, Florida Intl University / Applied Research Center; Paula Kirk, ORNL; Thomas Conley, UT-Battelle LLC/ ORNL; Edgard Espinosa, Florida International University (USA)

9:00 Use of Field High Resolution Gamma Spectroscopy During Decontamination and Decommissioning of Nuclear Facilities -9220

David Lasher, Eberline Services, Inc. (USA)

9:25 Use of Fixatives to Accelerate Building Decontamination and Decommissioning (D&D) - 9047

**Thomas Conley**, UT-Battelle LLC/ ORNL; Paula Kirk, ORNL; Leonel Lagos, Peggy Shoffner, Florida Intl University / Applied Research Center; Theresa Walsh, Management Solutions LLC (USA)

9:50 Graphite Waste Tank Cleanup and Decontamination under Marcoule UP1 D&D Program - 9224 Jean-Michel Chabeuf, Thierry Varet, AREVA NC; Didier Boya, CEA (France)

10:15 am –	Session 30	Room
12:00 pm		222A

### Waste Optimization/Minimization During D & D

Co-Chairs: Maria Lindberg, Studsvik UK Ltd (UK); Jean-Jacques Grenouillet, EDF (France) Sponsor and Organizer: Maria Lindberg Organizer: Jas Devgun Paper Reviewer: Maria Lindberg

10:20 Applicability of Clearance Automatic Laser Inspection System to Clearance Measurement of Concrete Segments -9129

> *Michiya Sasaki*, Haruyuki Ogino, Central Research Institute of Electric Power Industry; Takatoshi Hattori, CRIEPI (Japan)

10:45 10 Years Return On Experience In Minimizing Metallic Radwaste Using The MEDOC Hard Chemical Decontamination Process - 9316 Kurt Van den Dungen, Eric Cantrel, SCK-CEN (Belgium)

- 11:10 Experimental Tests of Ultrasonic Decontamination of Metal Radioactive Waste - 9012 Albert Vasilyev, ANO MCEB; Olga Karlina, Alexander Savkin, SIA Radon (Russia)
- 11:35 Innovative D&D Technology Utilizing High Pressure Liquid Nitrogen for Scabbling, Cutting, and Decontamination - 9045 Mark Denton, Kurion. Inc.; Ron Warnecke, Nitrocision LLC (USA)

8:30 am –	Session 31	Room
12:00 pm		221C

## Technical Innovations in Environmental Remediation and Site Closure

Co-Chairs: Del Baird, CDM; Angie Jones, AMEC Nuclear, Ltd. (USA) Sponsor and Organizer: Del Baird Organizer: Angie Jones

#### 8:35 Utilizing Innovative Technologies for Environmental Clean-up at Savannah River Site - 9144 Christopher Bergren, Savannah River Nuclear Solutions; Wade Whitaker, US DOE - SRNL; Mary Flora, Area Completion Projects, SRS (USA)

- 9:00 In-Situ Chemical Oxidation via Ozone at a Multiple-Remedy UST Site - 9124 Frederic Coll, URS Corporation -Washington Division; Richard Moore, URS Corporation (USA)
- 9:25 An Innovative Approach for Constructing an In-Situ Sequestration Barrier for Strontium-90 at the Hanford Site, Washington - 9325 *Michael Thompson, US DOE; Jim Szecsody, Vince Vermeul, Mark Williams, John Fruchter, Robert J. Fellows, PNNL; Russel J. Fabre, CH2M HILL Plateau Remediation (USA)*
- 9:50 Polyphosphate Remediation Technology for In-Situ Stabilization of Uranium - 9093 Dawn Wellman, Eric Pierce, Diana Bacon, Vince Vermeul, John Fruchter, PNNL; Sam Webb, Stanford Synchrotron Radiation Laboratory (USA)
- 10:20 Treatability Testing of an In-Situ Biostimulation Barrier for Nitrate and Chromium Treatment - 9126 Michael Truex, Vince Vermeul, John Fruchter, PNNL (USA)
- 10:45 Foam-Delivery of Remedial Amendment for Enhanced Vadose Zone Metal and Radionuclides Remediation - 9465 *Lirong Zhong, Jim Szecsody, Nikolla Qafoku, Evan Dresel, Fred Zhang, PNNL (USA)*
- 11:10 Innovative Uses of Organophilic Clays for Remediation of Soils, Sediments and Groundwater - 9507 Allen Bullock, CETCO (USA)

8:30 am –	Session 32	Room
12:00 pm		221B

### Technical Topics in Radioactive Materials Packaging

Co-Chairs: Frank Moussa, US DOE (USA); Robin Sweeney, US DOE - YMPO (USA) Sponsor and Paper Reviewer: Richard Yoshimura Organizer: Larry Harmon

8:35 Overview of the US DOE-EM Packaging Certification Program - 9417 Matt Feldman, ORNL; Marvin Bennett, Eagle Research Group, Inc.; James Shuler, US DOE, Office of Packaging and Transportation (USA) 9:00 A Comparative Analysis of Natural Convection Modeling Methods in a Horizontal Annulus and Its Application to Spent Nuclear Fuel Transfer Operations -9206

Jesse Robles, Christopher Bajwa, US NRC; Emilio Baglietto, CD-adapco (USA)

- 9:25 Benchmark of Container Analysis Fire Environment Simulations against Large-Scale Calorimeter Fire Test Temperature Measurement - 9340 *Marcelo del Valle, Miles Greiner, University* of Nevada, Reno (USA)
- 9:50 The MacArthur Maze Fire: How Hot Was It? - 9223 Darrell Dunn, Christopher Bajwa, Earl Easton, US NRC (USA)
- 10:20 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 Material - 9079 Gheorghe Vieru, Institute for Nuclear Research (Romania)

8:30 am –	Session 33	Room
12:00 pm		221A

Radiological Dispersion Devices (RDD)/Improvised Radiological (IRD)/Nuclear-Weapons of Mass Destruction (WMD): Detection, Response, Decontamination and Recovery

Co-Chairs: Larry Regens, University of Oklahoma, Health Sciences Center; Kim Auclair, KD Auclair & Associates, LLC (USA) Sponsor and Paper Reviewer: Kim Auclair Organizers: Larry Regens, Kim Auclair

- 8:35 Adaptive Management: A Paradigm for Remediation of Public Facilities - 9428 David Janecky, Jeffrey Whicker, LANL; Ted B. Doerr, MWH Americas, Inc. (USA)
- 9:00 Updated Decision Support Tool for the Management of Waste and Debris from Radiological Incidents - 9150 Paul Lemieux, Susan Thorneloe, US EPA; Colin Hayes, Molly Rodgers, Roger Christman, Eastern Research Group, Inc. (USA)
- 9:25 Spatial Interaction Modeling to Identify Potentially Exposed Populations during RDD or IND Terrorism Incidents - 9443

*Larry Regens*, James Gunter, Sangetta Gupta, University of Oklahoma Health Sciences Center (USA)

- 9:50 Sequestration Coating Performance Requirements for Mitigation of Contamination from a Radiological Dispersion Device - 9067 John Drake, US EPA (USA)
- 10:20 Security Requirements for Spent Fuel Storage Systems - 9264 *Philip Brochman, Shana R. Helton, Elizabeth Thompson, US NRC (USA)*
- **10:45 Lessons Learned from TOPOFF 4** 9385 *Ed Day, PELL Resources (USA)*

8:30 am –	Session 34	Room
10:15 am		229B

#### Panel: Graduating Students and New Engineers Wants and Needs - Are Companies Even Listening?

Co-Chairs: Robert Berry, Foxfire Scientific (UK); Leonel Lagos, Florida International University / Applied Research Center (USA) Sponsor: Robert Berry Organizers: Robert Berry, Leonel Lagos Panel Reporter: Leonel Lagos

This panel will focus 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. This communication will let students know what employers are looking for in terms of technical skills. With this new approach, both sides can express their wants and needs for a more satisfied workforce and a better work environment.

**Panelists: Diane Cochran**, Deputy Assistant Secretary, Human Capital & Business Services, US DOE; **John W. Poston Sr.**, Texas A&M University; **Collin Donohoue**, Student, Colorado School of Mines; and **Denisse Arranda**, (DOE Fellow) Florida International University/Applied Research Center (USA)

10:15 am –	Session 35	Room
12:00 pm		229B

### Panel: International Youth Nuclear Conference/Young Professionals

Co-Chairs: Robert Berry, Foxfire Scientific (UK); Leonel Lagos, Florida International University / Applied Research Center (USA) Sponsor and Panel Reporter: Robert Berry Organizers: Robert Berry, Leonel Lagos

This panel will feature views on radioactive waste management from young persons' perspectives from all around the world. An informal panel-style format 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.

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 of issues.

8:30 am –	Poster Session 36	Room
12:30 pm		2nd Floor

Posters: L/ILW, NORM & TENORM- A-D Nuclear Power Plants - E

# Topic A: Waste Processing Methods and Operations

Co-Chairs: Tammy Monday, Perma-Fix Environmental Services, Inc.; Lance Mezga, ORNL (USA)

Sponsor and Paper Reviewer: Lance Mezga Organizer: Frazier Bronson

#### A.1 Steam Reforming Technology Demonstration for Conversion of Hanford LAW Tank Waste and LAW Recycle Waste into a Leach Resistant Alkali Aluminosilicate Waste Form - 9354 Vishal Vora, Arlin Olson, Brad Mason, Brent Evans, Kevin Ryan, THOR Treatment Technologies, LLC; Hoyt Johnson, US DOE (USA)

A.2 **Biological Cleanup of Fission Products** from Radioactive Waste Using Sulfate **Reducing Bacteria as a Biosorbent** - 9207 Nonhlanhla Ngwenya, Evans Chirwa, University of Pretoria (Republic of South Africa) A.3 Solidification Testing for an Oak Ridge National Laboratory Waste Stream Using **Grouts and Radiation Shielding Materials** - 9379 Jody Bickford, Martin Foote, MSE Technology Applications, Inc; Paul Taylor, ORNL (USA) A.4 Solidification Testing for Several Savannah River Low Level Waste Streams using Grouts, Sorbents and Gamma Radiation Shielding Materials -9378 Jody Bickford, Martin Foote, MSE Technology Applications, Inc; Heather Burns, WSRC (USA) A.5 **Development of the Volume Reduction** Treatment of Solid Waste System by **Ultra-High Frequency Induction Furnace -**9356 Tetsuro Sakakibara, Yoshio Aoyama, Hiromi Yamaguchi, JAEA; Naoto Sasaki, Minoru Takeshi Nishikawa, Mitsubishi Materials Corporation; Jong-Soo Park, Syoji Taniquchi. Tohoku University: Michiru Fuiita. Fuji Electric Thermo Systems Corporation: Tomoyuki Fukuda, TYK Corporation; Hiroshi Suzuki, TYK Corporation (Japan) A.6 **Graphite Waste Tank Cleanup and Decontamination under Marcoule UP1 D&D Program** - 9152 Jean-Michel Chabeuf, Thierry Varet, AREVA NC (France); Didier Boya, CEA (France) A.7 The Pretreatment of Low Level **Radioactive Liquid Waste for Bituminization** - 9050 Guo Zhimin, Wang Xiaogiang, He Junyong, Jiang Ming, Ren Yong, Sichuan Environmental Protection Engineering Co. Ltd. (China) **Increased Capabilities for Thermal A.8 Desorption** - 9168 *Timothy Orton*, *EnergySolutions (USA)* A.9 **Cement Solidification Method for** Intermediate Level Liquid Waste including Sodium Sulfate (Na2SO4) - 9365 Yoshiko Haruquchi, Masaaki Kaneko, Yu Yamashita, Tatsuaki Sato, Michitaka Sasoh,

Masamichi Obata, Toshiba Corporation (Japan)

- A.10 Radioactive Wastes Cementation during **Decommissioning of Salaspils Research Reactor** - 9188 Gunta Abramenkova, University of Latvia; Andris Abramenkovs. Hazardous Waste Management State Agency; Maris Klavins, Faculty of Geographical and Earth Sciences, University of Latvia (Latvia)
- A.11 Vitrification of Radioactive Hospital Waste Incineration Ash - 9149 **Pawel Stoch**, Institute of Atomic Energy (Poland)
- A.12 Commissioning Tests of the ULCHIN LLW Vitrification Facility in Korea - 9107 Kyung Hwa Yang, Korea Hydro and Nuclear Power Co., Ltd.; Sang-Woon Shin, Nuclear Environment Technology Institute; Chan-Kook Moon, Korea Hydro and Nuclear Power Co., Ltd. (Korea)
- A.13 Low-Level Liquid Radwaste Treatment using Membrane Technologies. - 9201 **Denis Fedorov**, Sergey Dmitriev, Alexander Savkin, SIA Radon (Russia); Artur Arustamov, Pentek, Inc. (USA)
- A.14 Waste and Pollution the Silent Killers -9154 Sohail Raza Dodhy, Pakistan Hosiery Manufacturers Association (Pakistan)

### Topic B: L/ILW NORM Waste Storage & **Disposal Operations and Issues**

Co-Chairs: Mark Lyons, Studsvik UK Ltd. (UK); Erich Tiepel, Golder Associates, Inc (USA) Sponsor: Erich Tiepel Organizer and Paper Reviewer: Colleen Owens

- B.1 Evaluation of Radon Release from Actinide-Bearing Waste Forms - 9233 Gary Cerefice, University of Nevada, Las Vegas; Thomas O'Dou, University of Nevada, Las Vegas (USA)
- **B.2** The Methodology on Exposure Dose **Evaluation Modeling Related to Arbitrary** Accident in the Temporary Storage Facility for Low and Intermediate Level Waste -9133

Min Ho Ahn. Korea Advanced Institute of Science and Technology; Kun Jae Lee, KAIST; Kyung-Woo Choi, Korea Institute of Nuclear Safety (Korea)

- B.3 US DOE Pipeline Unplugging Requirements Development - 9361 Jose Rivera, (DOE Fellow), Florida International University / Applied Research Center; Rick Demmer, INL (USA)
- B.4 Status of Toxic and Hazardous Waste Management in the Philippines: Issues, Concerns and Challenges - 9357 Eileen Bernardo, Isabela State University (Philippines)

## Topic C: Waste Characterization and Classification

Co-Chairs: Frazier Bronson, Canberra Industries, Inc.; Stephen Croft, Canberra Industries, Inc. (USA) Sponsor, Organizer and Paper Reviewer: Frazier Bronson

C.1 Enriched Uranium Waste Assay at AWE -9034

Timothy Miller, AWE (UK)

- C.2 Estimated Uncertainty in Segmented Gamma Scanner Assay Results Due to the Variation in Drum Tare Weights - 9332 Andrey Bosko, Stephen Croft, Canberra Industries, Inc.; Ed Gulbransen, AREVA Federal Services LLC (USA)
- C.3 Performance Comparison of the Segmented Gamma Scanning Method with the Far Field Method for Nuclear Waste Assay - 9021 Alan Simpson, Pajarito Scientific Corporation (USA)
- C.4 Laser-Induced Breakdown Spectroscopy: Application to Nuclear Waste Management -9166

Seong Yong Oh, Fang-Yu Yueh, Institute for Clean Energy Technology; **Jagdish Singh**, Institute for Clean Energy Technology -Mississippi State University; Kristine E. Zeigler, Savannah River Nuclear Solutions (USA)

C.5 Soil-to-Plant Transfer Factor of Uranium by Measuring Naturally Occurring Uranium at Trace Levels in Plants and Soils by ICP-MS - 9105

*Keiko Tagami*, Shigeo Uchida, National Institute of Radiological Sciences; Ikuko Hirai, Tokyo Nuclear Services Co., Ltd. (Japan)

C.6 Justification for Application of Historical Y-12 Default Radiological Activity Values to Legacy Waste - 9401 Gary Coleman, Bechtel Jacobs LLC (USA)

### Topic D: L/ILW Waste Minimization

Co-Chairs: David Swale, EnergySolutions; Michael Connolly, INL (USA) Sponsor, Organizer and Paper Reviewer: Michael Connolly

- D.1 Efforts to Reduce Radioactive Wastes at High Flux Advanced Neutron Application Reactor (HANARO) in Korea - 9190 Sung Paal Yim, Hoan Sung Jung, Guk-Hoon Ahn, In-Cheol Lim, KAERI; Cheo Kyung Lee, Handong Global University (Korea)
- D.2 The Application of Molecular Recognition Technology (MRT) in the Nuclear Power Cycle: from Uranium Mining and Refining to Power Plant Waste Separation and Recovery, as well as Element Analysis -9075

Steven Izatt, Ronald Bruening, **Neil Izatt**, IBC Advanced Technologies, Inc. (USA); John Dale, IBC Advanced Technologies, Inc. (Canada)

- D.3 Purification of Lead-Bismut Eutectic Used in Accelerator Driven Systems - 9411 Lorenzo Ortiz Amaya, Johan Braet, SCK-CEN (Belgium)
- D.4 Product Control of Waste Products with New Coating Materials - 9301 Hardi Krumbach, Reinhard Odoj, Forschungszentrum Jülich GmbH; Wilhelm Wartenberg, QSA-Global GmbH; Hartmut Grunau, Eisenwerk Bassum m.b.H; Hans-Jürgen Steinmetz, Research Centre Jülich (Germany)
- D.5 Dexterity Test Data Contribute To Reduction In Leaded Glovebox Glove Use -9055

*Michael Cournoyer*, Amanda Castro, Cindy Lawton, Steve Costigan, Steve Schreiber, LANL (USA)

### Topic E: Nuclear Power Plant (NPP) Waste Management

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

### E.1 Removal Of Antimony-124 from PWR Coolant Water - 9111

**Risto Harjula**, Airi Paajanen, Risto Koivula, University of Helsinki; Esko Tusa, Fortum Nuclear Services, Ltd; Roger Kvarnström, Fortum Power and Heat Ltd (Finland)

E.2 Role and Place of Joint-Stock Company "ECOMET-S" in the System of Solid Radioactive Waste Treatment Generated at the Nuclear Power Plants of the Russian Federation - 9218

Alexander Gelbutovski, Petr Cheremisin, Alexander Troshev, JSC Ecomet-S (Russia)

### MARCH 3, 2009 TUESDAY PM

1:30 pm –	Session 37	Room
5:00 pm		229B

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

Co-Chairs: Pamela Horning, LLNL; George Jackson, Fluor Government Group (USA) Sponsor, Organizer and Paper Reviewer: John Longenecker

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: William Morrison, EnergySolutions; Roland Knapp, LANL; Kenneth Keith, Chief Engineer, Engineering Division, BWXT Y-12; Anthony Umek, Vice President, ESH&Q, Fluor Government Group; Russell Mellor, Vice President, URS Washington Division; Conard Stair, MMES Inc; Norman Barker, Vice President, EnergySolutions; Mark Sueksdorf, Department Manager, LLNL; Ami Peters; Andrew Vincent; Denise Robinson; Jim P. Mulkey, Senior Technical Advisor, US DOE; and Jeff Jay, Chair, Savannah River Nuclear Solutions (USA)

1:30 pm –	Session 38	Room
3:15 pm		229A

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

Co-Chairs: Ron Gorham, NDA (UK); Fred Sheil, Sellafield Ltd. (UK) Sponsor and Panel Reporter: Fred Sheil Organizers: John Mathieson, Fred Sheil

This panel will discuss how Clients and Contractors are working together for the benefit of all. Included within the session will be a review of the recently awarded Contract for the Sellafield Site and an update on Collaborative Contracting across the NDA estate.

This session is important to anyone seeking to work with within the NDA estate as it will also include new opportunities and an update on Supply Chain developments.

**Panelists: Ian Hudson**, NDA's Sellafield Programme Director; **Keith Case**, Commercial & Contract Management Director, Sellafield Limited; and **Ron Gorham**, Head of Supply Chain Optimisation, NDA (*UK*)

3:15 pm –	Session 39	Room
5:00 pm		229A

## Museum and Visitors Centers: Tools for Communication

Co-Chairs: Helen Belencan, US DOE - Savannah River; W.T. (Sonny) Goldston, Savannah River Nuclear Solutions (USA) Sponsor: Connie Callan Organizers: Heather Klebba, William Knauf Paper Reviewer: Linda Ulland 3:20 National Institutional Model for Presenting Accurate Relevant Nuclear Science Information for People of All Ages and Interests - 9476 Jim Walther, National Museum of Nuclear Science & History (USA)

- 3:45 The Fernald Preserve Visitors Center: The Fernald Experience - Revealing, Engaging and Preserving - 9426 Jane Powell, US DOE Office of Legacy Management; Glenn Griffiths, Melissa Lutz, Sue Walpole, S.M. Stoller Corporation (USA)
- 4:10 End of an Era and Closing the Circle -Disposal of Strontium-90 Radioisotope Thermoelectric Generators - 9415 Dave Parks, BEA; Joel Grimm, US DOE; Jared Dominick, LLNL (USA)
- 4:35 Museums and Visitors Centers as a Tool for Communication of Nuclear Issues -9492

*Troy Wade, Nevada Test Site Historical Foundation (USA)* 

1:30 pm –	Session 40	Room
5:00 pm		224B

## Panel: International SNF Recycling - Status and Near Future Progress Assessment

Co-Chairs: James Buelt, PNNL; Sal Golub, US DOE, Office of Fast Reactor Development (USA) Sponsor: Harry Babad Organizers: James Buelt, Michael Lawrence Panel Reporter: James Buelt

This panel session will focus on updating WM attendees on spent fuel recycling activities. The panel will discuss different reprocessing/recycling approaches, institutional issues (regulatory and non-proliferation), and broader political issues associated with making a bolder step forward for improving the sustainability of nuclear power through spent fuel recycling.

The drivers for recycling will be discussed, including: 1) improving US energy security through a reliable, diverse and sustainable domestic energy supply, 2) improving nuclear waste management and disposal, and 3) expanding the benefits of nuclear power internationally in a way that does not increase the risk of proliferation. Counter arguments will also be discussed, including: 1) proliferation concerns over reprocessing technology and accumulated plutonium, 2) economic viability, and 3) adequacy of safeguards. The panel will consist of a series of introductory remarks by each of the panelists expressing their viewpoints on recycling followed by a question and answer session among the panel members and with the attendees.

Panelists: Sal Golub, Director, US DOE - Office of Fast Reactor Development, Martin Wheeler, EnergySolutions; Dorothy Davidson, AREVA; Earl Saito, GE-Hitachi, Steve Kraft, Nuclear Energy Institute (USA); Ian Hudson, Nuclear Decommissioning Authority (UK); and Zvonko Lovasic, International Atomic Energy Agency

1:30 pm –	Session 41	Room
3:15 pm		224A

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

Co-Chairs: John Remark, AREVA NP Inc; Mark Lewis, EnergySolutions (USA) Sponsor, Organizer and Panel Reporter: Mark Lewis

This panel will feature senior nuclear utility managers discussing issues with US commercial LLW disposal site operators. It also provides the opportunity for representatives of US commercial LLW disposal facilities to update managers of radioactive waste at nuclear power plants on disposal site access and services provided.

**Panelists: Bret Rogers**, Sr. VP, EnergySolutions; **William Dornsife**, VP, Waste Control Specialists LLC; and **William House**, VP, EnergySolutions *(USA)* 

3:15 pm –	Session 42	Room
5:00 pm		224A

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

Co-Chairs: Mark Lewis, EnergySolutions; John Remark, AREVA NP 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 commercially regulated guidelines. Processors are continuously changing and improving on services, which necessitate periodic updates to stay abreast.

**Panelists: Troy Eshleman**, EnergySolutions; **Jimmy Harris**, Studsvik, Inc.; **Bill Smart**, Perma-Fix Environmental Services, Inc; **Greg Broda**, Impact, Inc.; and **Joseph Harverson**, Alaron Corporation *(USA)* 

1:30 pm –	Session 43	Room
5:00 pm		223

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

Co-Chairs: Terry Wickland, Nuclear Filter Technology; Roger Nelson, US DOE (USA) Sponsor and Paper Reviewer: Terry Wickland Organizers: Roger Nelson

- 1:35 Final Evaluation of Characterizing Pipe-Over-Pack Containers Using High Efficiency Neutron Counters - 9086 Sean Stanfield, AREVA Federal Services; Joe Wachter, Doug Cramer, Canberra Industries, Inc.; Joe Harvill, Washington TRU Solutions, LLC; Pete Carson, LANL (USA)
- 2:00 Waste Disposition Issues and Resolutions at the TRU Waste Processing Center at Oak Ridge TN - 9253 *Ronald Gentry, EnergX (USA)*
- 2:25 Downblend and Disposition Remote Handled U-233 Material at the WIPP Facility - 9374

Mark Polley, Isotek Systems (USA)

2:50 Automated Solutions for Identification of Abnormalities within Waste Streams - 9229 Bryant Slater, Heather Bruemmer, Gary Smylie, Insei (USA) 3:20 Conversion Factors for Predicting Unshielded Dose Rates in Shielded Waste -9162

**Rodney Arbon**, Bechtel BWXT Idaho, LLC; James Seamans, Martin Clapham, Pajarito Scientific Corporation (USA)

- 3:45 Enhancing Liquid Availability through Mechanical Compaction: An Alternative to Incineration - 9095 Rodney Arbon, Bechtel BWXT Idaho, LLC; Anna Carter, William Lattin, US DOE (USA)
- 4:10 Complications Associated with Long-Term Disposition of Newly-Generated Transuranic Waste: A National Laboratory Perspective - 9283 Brady Orchard, Lisa Harvego, Timothy Carlson, Roy Grant, INL (USA)
- 4:35 EM Technical Review of the ARROW-PAK Container - 9439

**Yung Liu**, Argonne National Laboratory; Steven Schneider, US DOE; James Shuler, US DOE Office of Packaging and Transportation (USA)

1:30 pm –	Session 44	Room
5:00 pm		222C

## Vitrification Experience and Glass Characterization

Co-Chairs: Ned Bibler, SRNL (USA); Christian Ladirat, CEA Valrho (France) Sponsor and Paper Reviewer: Ned Bibler Organizers: Keith Miller, Ned Bibler

- 1:35 Glass Formulation Development and Testing for Cold Crucible Induction Melter (CCIM) Advanced Remediation Technologies Demonstration Project - 9208 James Marra, Amanda Youchak-Billings, David Peeler, SRNL; Michael Stone, WSRC; Thomas Edwards, Savannah River Nuclear Solutions, LLC (USA); Christophe Girold, Jean-Luc Dussossoy, CEA (France)
- 2:00 Infrared Imaging for the Control and Optimization of Waste Treatment by Vitrification - 9322 *Keith Witwer, AMEC Nuclear, Ltd; Troy Duncan, Edward Selle, Mark Storaasli, AMEC, GeoMelt Division (USA)*
- 2:25 Methodology of Qualification of CCIM Vitrification Process Applied to the Decontamination Effluent of the La Hague UP2-400 Facility - 9142

*Alain Ledoux*, Olivier Pinet, Agnès Grandjean, Jean-Luc Dussossoy, Philippe Gruber, Geoffroy Pruvost, Eric Tronche, J. Lacombe, CEA ; Sandrine Naline, Richard Do Quang, AREVA; Christian Ladirat, CEA Valrho; Eric Chauvin, AREVA NC (France)

2:50 Measurement and Calculation of Radionuclide Activities in Savannah River Site High Level Waste Sludge for Acceptance of Defense Waste Processing Facility Glass in a Federal Repository -9399

Christopher Bannochie, Ned Bibler, David DiPrete, SRNL (USA)

- 3:20 Vitrification of HLLW Surrogate Solutions Containing Sulfate in a Direct-Induction Cold Crucible Melter - 9136 *Eric Tronche*, J. Lacombe, Alain Ledoux, Christian Ladirat, Roger Boen, CEA (France)
- 3:45 The Impact of Na-H+ Exchange on Long-Term Borosilicate Glass Corrosion: Experiments and Field Observations - 9404 Jonathan Icenhower, Eric Pierce, PNNL (USA); B McGrail, Battelle Pacific Northwest Division (USA)
- 4:10 Cold Crucible Induction Melter Testing at the INL for the Advanced Remediation Technologies Program - 9337 Jay Roach, Nick Soelberg, Mike Ancho, INL; Eric Tchemitcheff, AREVA Federal Services

LLC; John Richardson, Vista Engineering (USA)

 1:30 pm –
 Session 45
 Room

 5:00 pm
 222B

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

Co-Chairs: Robert Hiergesell, Glenn Taylor, SRNL (USA) Sponsor: James Cook

Organizers: James Cook, Robert Hiergesell Paper Reviewer: Robert Hiergesell

1:35 Improving Consistency of Performance Assessments in the US DOE Complex -9171

*Martin Letourneau*, Steve Krahn, US DOE; David Kosson, Charles Powers, CRESP/Vanderbilt University; James Clarke, Vanderbilt University; Roger Seitz, Elmer Wilhite, SRNL (USA) 2:00 Capillarity in Concrete Disposal Vaults and its Influence in the Behavior of Isolation Barriers at El Cabril L/ILW Disposal Facility in Spain - 9015

**Pablo Zuloaga**, Manuel Ordoñez, ENRESA; Maarten W Saaltink, Polytechnic University of Catalonia; Marta Castellote, Instituo Eduardo Torroja IETCC-CSIC (Spain)

- 2:25 Cementitious Barriers Modeling for Performance Assessments of Shallow Land Burial of LLW - 9243 Glenn Taylor, SRNL (USA)
- 2:50 Safety Assessment of the New Very Low-Level Waste Disposal at El Cabril, Spain -9042 Mariano Navarro, Pablo Zuloaga, Inmaculad

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Mariano Navarro, Pablo Zuloaga, Inmaculada
Lopez, ENRESA (Spain)
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- 3:20 Performance Assessment for the F-Tank Farm at Savannah River Site - 9462 *Kent Rosenberger, SRS (USA)*
- 3:45 Composite Analysis of LLW Disposal Facilities at the US DOE's Savannah River Site - 9158 Robert Hiergesell, Mark Phifer, Frank Smith III, SRNL (USA)
- 4:10 Risk-Insights Gained from Review of a Performance Assessment for Radioactive Waste Disposal - 9290 Cynthia Barr, Hans Arlt, George Alexander, Christepher McKenney, US NRC (USA)
- 4:35 Modelling Uranium Waste Residue Release and Transport within a Near Surface Repository - 9137 *Simon Kwong*, Joe Small, Olivia Thompson, NNL (UK)

1:30 pm –	Session 46	Room
5:00 pm		222A

### Waste Characterization for LLW, ILW, MW

Co-Chairs: Frazier Bronson, Canberra Industries, Inc.; John Patterson, Strata-G (USA) Sponsor and Paper Reviewer: Frazier Bronson Organizers: Lance Mezga

1:35 Screening Excavated Soils For Spent Fuel Fragments Using A Compton To Cs-137 Photopeak Ratio Methodology - 9525 J. Stewart Bland, Chesapeake Nuclear Services; Paul Steinmeyer, Radiation Safety Associates, Inc.; Edward Traverso, Washington Closure Hanford (USA)

2:00	Soil Characterization by Large Scale Sampling of Soil Mixed with Buried	1: 5:
	<b>Construction Debris at a Former Uranium</b> <b>Fuel Fabrication Facility</b> - 9331 <b>A. Nardi</b> , ENERCON Services, Inc.; Lisa	TI th
	Lamantia, Curtiss-Wright Electro-Mechanical Corporation (USA)	C
2:25	Optimum Method to Determine Gamma Activity in Large Boxes of Radioactive Material - In-toto Measurement vs. Sample Extraction - 9246 <i>Frazier Bronson</i> , Kara Morris, Canberra Industries (USA)	(L (S S P 7
2:50	Meeting the Challenge: How to Assay Diverse Drummed Waste Types with a Flexible Tomographic Gamma Scammer - 9472	1:
	Wilhelm Mueller, Stephen Croft, S.C. Kane, P.M. McClay, Robert McElroy, Ram Venkataraman, Marcel Villani, Dusan Lexa, Canberra Industries, Inc. (USA); G. Lafranco, K. Seidl, Canberra Packard Central Europe, GmbH; Wolfgang Neckel, Nuclear Engineering Seibersdorf GmbH (Austria)	2:
3:20	An Alternate Approach to the Add-A- Source Matrix Calibration for SLB-2 Containers in the Box Neutron Assay System - 9339 Andrey Bosko, Stephen Croft, Robert McElroy, Sasha Philips, Marcel Villani, Canberra Industries, Inc. (USA)	2:
3:45	Comparison of Deadtime Correction Factors for Passive Neutron Multiplicity Counting of Correlated and Non-Correlated Neutron Sources - 9298 Louise Evans, Paul Norman, University of Birmingham (UK); Stephen Croft, N. Menaa, Canberra Industries, Inc. (USA)	2: 3:
4:10	Nuclear Calibration of a Large Volume Calorimeter - 9318 Eloisa Alvarez, Ken Lambert, Canberra Industries, Inc. (UK); Stephen Croft, Sasha Philips, Canberra Industries, Inc. (USA);	3:
	Juliette Guerault, Setaram Instrumentation (France)	
4:35	Recent Advances in Low-Level Nuclear Measurements at CEA - 9212 Christophe Le Goaller, Fabrice Lamadie, Charly Mahé, CEA (France)	
		4:

1:30 pm –	Session 47	Room
5:00 pm		221C

The International Decommissioning Network of the IAEA

Co-Chairs: Jas Devgun, Sargent & Lundy, LLC (USA); Hans-Frieder Beer, Paul Scherrer Institute (Switzerland)

Sponsor and Paper Reviewer: Michele Laraia Organizers: Michele Laraia, Albert Freitag Paper Reviewer: Michele Laraia

1:35 The Reuse of Decommissioned Facilities and Sites as an Emerging Means to Alleviate the Decommissioning Burden and its Potential Applications within IAEAs International Decommissioning Network -9001

Michele Laraia, IAEA (Austria)

- 2:00 French Atomic Energy Commission Decommissioning Programme and Feedback Experience - 9080 Jean-Pierre Rozain, Jean-Guy Nokhamzon, Catherine Lecomte, CEA/SACLAY (France)
- 2:25 Reuse of East Tennessee Technology Park (Former K-25 Site) on the Oak Ridge Reservation: Progress, Problems, and Prospects - 9346 Susan Gawarecki, ORR Local Oversight Committee (USA)
- 2:50 Focus on International Co-Operation in D&D Cost Estimations for Research Reactors and the Role of the IAEA in it -9363

Vladimir Daniska, DECONTA, a.s. (Slovak Republic); Michele Laraia, IAEA (Austria)

3:20 The Role of Stakeholders in the Decommissioning of SALASPILS Research Reactor - 9109 Andris Abramenkovs, Hazardous Waste Management State Agency (Latvia)

3:45 International Decommissioning Network as a Forum to Support Decommissioning Activities in Countries with Limited Resources and Experience: the Serbian Case - 9026

*Vladan Ljubenov*, *Milijana Steljic*, *Dragana Nikolic*, *Vinca Institute of Nuclear Sciences* (*Republic of Serbia*)

4:10 Barsebäck NPP in Sweden-Decommissioning Project - 9350 Håkan Lorentz, Barsebäck Kraft AB (Sweden)

1:30 pm –	Session 48	Room
5:00 pm		221B

### Transportation of SNF and Radioactive Material

Co-Chairs: Ella McNeil, US DOE; Paul Jones, DeNuke Services, Inc. (USA) Sponsor: Alexander Thrower Organizer: Larry Harmon Paper Reviewer: Paul Jones

- 1:35 Transport of Spent Nuclear Fuels, High and Intermediate Level Wastes: A Continuous Challenge. - 9216 Camille Otton, AREVA TN International (France)
- 2:00 The US DOE Project to Exchange Fuel between Idaho National Laboratory and the Savannah River Site: How the Office of Environmental Management's Efforts Are Helping the Yucca Mountain Project's Logistics Planning - 9311 Hitesh Nigam, Alexander Thrower, Ella McNeil, US DOE (USA)
- 2:25 The Question of Queue: Implications for "Best Practice" in Cross-Country Transport of Commercial Spent Nuclear Fuel - 9402 James Williams, Western Interstate Energy Board (USA)
- 2:50 Current Status of the Nevada Rail Project and Plans to Service the Repository by Rail - 9405

**Randolph Coppage**, Booz Allen Hamilton; Ned Larson, US DOE (USA)

- 3:20 Packaging and Transportation of Depleted Uranium for Disposition from the Savannah River Site - 9447 Dawn Gillas, US DOE / SR / AMNMSP; Jeb Berg, Cavanagh Services Group, Inc. (USA)
- 3:45 The Commercial Vehicle Safety Alliance North American Standard Level VI Inspection Program: Ensuring Safe Transportation of Radioactive Materials -9408

*Larry Stern*, Commercial Vehicle Safety Alliance; Peter Bolton, Booz Allen Hamilton (USA)

4:10 Shipment of Spent Nuclear Fuel from the Nuclear Research Institute Rez Plc, Czech Republic to the Russian Federation for Reprocessing - 9422 Josef Podlaha, Nuclear Research Institute Rez PLC (Czech Republic)

1:30 pm –	Session 49	Room
5:00 pm		221A

## ER Post Closure Challenges and Long Term Stewardship/Legacy Management

Co-Chairs: Raymond Plieness, US DOE; David Wallace, CDM (USA) Sponsor: Erich Evered Organizers: Angela Watmore, Raymond Plieness Paper Reviewer: David Wallace

1:35 Remediation of Uranium at the US DOE's Legacy Management Sites - 9438 Stan Morrison, Cathy Glassmeyer, Ken Broberg, David Miller, Timothy Bartlett, Clay Carpenter, Carl Jacobson, John Boylan, William A. Hertel, S.M. Stoller Corporation; Jalena Dayvault, Tracy Ribeiro, US DOE; Jane Powell, Scott Surovchak; Richard Bush, US DOE, Office of Legacy Management (USA)

- 2:00 Nevada Offsites Long-Term Hydrologic Monitoring Program - 9424 Mark Kautsky, US DOE; Lauren Branstetter, Colorado State University; Rex A. Hodges, Rick Findlay, Dave M. Peterson, S.M. Stoller Corporation; Jack Craig, US DOE - Office of Legacy Management; Jalena Dayvault, US DOE (USA)
- 2:25 Balancing Subsurface Restrictions and Resource Access under Conditions of Changing Land Use at the Rulison Underground Nuclear Test Site, Piceance Basin, Colorado, USA - 9440 Jenny Chapman, Clay Cooper, Desert Research Institute; Ming Ye, Florida State University; Rex A. Hodges, Richard Hutton, S.M. Stoller Corporation; Jack Craig, US DOE - Office of Legacy Management; Thomas Pauling, US DOE (USA)
- 2:50 Plant Mounds as Concentration and Stabilization Agents for Actinide Soil Contaminants - 9175 David Shafer, Desert Research Institute; Jenna Gomes, University of Nevada, Reno (USA)

3:20 Monitoring the Long-Term Performance of Engineered Containment Systems: Role of Ecological Processes - 9418

Joanna Burger, Rutgers University- Division of Life Sciences; William (Jody) Waugh, S.M. Stoller Corporation; James Clarke, **Brooke Traynham**, Vanderbilt University (USA)

- 3:45 Short and Long-Term Fire Impacts on Hanford Barrier Performance - 9449 Kevin Leary, US DOE; Andy Ward, PNNL; Steven Link, Washington State University; Greg Berlin, Fluor Hanford, Inc.; Jerry Cammann, Fluor Government Group; Michelle Lynn-Yates Mandis, WA State Department of Ecology; Laura C. Buelow, US EPA (USA)
- **4:10 Employing Interim Water Management** Barriers at Waste Disposal Area - 9255 Daniel Sullivan, US DOE; Daniel Meess, Emil Selent, K. K. Gupta, Cynthia Dayton, David Garber, West Valley Environmental Services, LLC (USA)
- 4:35 Integrating Modeling and Monitoring to Provide Long-Term Control of Contaminants - 9478 Thomas Fogwell, Weiss Associates (USA)
- 1:30 pm Poster Session 50 Room 5:30 pm 2nd Floor
- Posters: Environmental Remediation A-C Security, Safety & Safeguards - D Communications & Education - E-F

## Topic A: Technical Innovations in Site Remediation

Co-Chairs: Donald Clark, DEC Enterprises; Del Baird, CDM (USA) Sponsor and Organizer: Angie Jones Paper Reviewer: Donald Clark

- A.1 Lowering Net Methyl Mercury Production in Lower East Fork Poplar Creek, Oak Ridge Reservation, Tennessee - 9155 Diane Jordan, Jay Cornish, MSE Technology Applications, Inc.; George Southworth, ORNL (USA)
- A.2 Development of Reference Cases for Use in the Cementitious Barriers Partnership Long Term Performance Evaluation - 9446 *Christine Langton*, WSRC; David Kosson, CRESP / Vanderbilt University; Andrew Garrabrants, Vanderbilt University (USA)
- A.3 Phytotoxicity and Phytoremediation Potential of Mercury in Indian Mustard and Two Ferns with Mercury Contaminated Water and Oak Ridge Soil - 9241 Yi Su, Fengxiang X. Han, David Monts, Jian

Chen, Safwan Shiyab, Mississippi State University (USA)

- A.4 Decontamination of Soils Contaminated with Co and Cs by Using an Acid Leaching Process - 9185 Jung-Joon Lee, Gye-Nam Kim, Jei-Kwon Moon, Kune-Woo Lee, KAERI (Korea)
- A.5 Remediation of Cretaceous Sediments Affected by Uranium In-Situ Leaching (ISL) in the Czech Republic - 9108 Josef Tomas, Ministry of the Environment; Jiri Muzak, DIAMO S.E. (Czech Republic)
- A.6 Automating Groundwater Sampling at Hanford - 9373 Carl Connell, Scott Conley, Fluor Hanford (USA); DeVon Cunningham, Lockheed Martin Information Technology (USA); R. Douglas Hildebrand, US DOE (USA)
- A.7 Fernald Preserve Aquifer Restoration Extraction Well and Pump Maintenance Improvements - 9427 William A. Hertel, Cathy Glassmeyer, S.M. Stoller Corporation; Jane Powell, US DOE -Office of Legacy Management (USA)

### Topic B: Modeling to Predict Fate and Transport and Ensure Compliance

Co-Chairs: Angie Jones, AMEC Nuclear, Ltd.; Del Baird, CDM (USA) Sponsor: Angie Jones Organizer and Paper Reviewer: James Wright

- B.1 Overview of Environmental Transport Models Contained in the Risk Analysis, Communication, Evaluation, and Reduction (RACER) Software Tools at Los Alamos National Laboratory - 9070 Arthur Rood, K - Spar Inc; Bruce Jacobs, Peter Shanahan, HydroAnalysis Inc.; James Rocco, Lesley Hay-Wilson, Sage Risk Solutions LLC; Helen Grogan, Cascade Scientific; John Till, Risk Assessment Corp.; H. Justin Mohler, Bridger Scientific; Jill W. Aanenson, Scientific Consulting (USA)
- B.2 Development of a Conceptual Model for Vadose Zone Transport of Tc-99 at Hanford's BC Cribs and the Screening of Remedial Alternatives - 9458 Andy Ward, Jeffrey Serne, PNNL; Mark Benecke, CH2M HILL Plateau Remediation Company (USA)
- B.3 An Approach for Estimating the Total Effective Dose at Atmospheric Nuclear Weapons Test Sites – 9235

Harold Anagnostopoulos, Stoller-Navarro Joint Venture; Raymond Kidman, Patrick Matthews, Stoller-Navarro; John Jones, NNSA NSO; Jeff MacDougall, Nevada Division of Environmental Protection (USA)

### **Topic C: Risk Based Decision Making**

Co-Chairs: Terry Sams, Parsons Infrastructure and Technology; Angie Jones, AMEC Nuclear, Ltd. (USA) Sponsor and Organizer: Angie Jones Paper Reviewer: Terry Sams

- C.1 Management and Beneficial Reuse of Overburden Material - Lined Formerly Utilized Sites Remedial Action Program (FUSRAP) Remediation Project - 9319 James Boyle, US ACE; Mark Schwippert, William Lorenz, The Shaw Environmental & Infrastructure (USA)
- C.2 Concentration, Soil-to-Plant Transfer Factor, and Soil-Soil Solution Distribution Coefficient of Selenium in the Surface Environment - 9106 Shigeo Uchida, Keiko Tagami, Nao Ishikawa, National Institute of Radiological Sciences (Japan)
- C.3 Study of Bioaccumulation Hg By Oreochromis Mossambicus Using Radiotracer Techniques - 9189 Heny Suseno, National Nuclear Energy Agency; Djarot Wisnubroto, Indonesia Nuclear Energy Agency; A. Budiawan, Sumi Hudiyono, University of Indonesia (Indonesia)
- C.4 Meteor Burst Remote Monitoring System Deployment at US DOE Hanford Site - 9375 Andrea Hart, Jack Joyce, MSE Technology Applications, Inc; Andy Ward, Chris Strickland, PNNL (USA)
- C.5 Department of Energy's Environmental Management of Legacy Waste: Successes and Challenges - 9515 *Michael Gochfeld*, Consortium for Risk Evaluation with Stakeholder Participation (CRESP); Henry Mayer, Rutgers University -CRESP; James Clarke, Lisa Bliss, Vanderbilt University; David Kosson, Charles Powers, CRESP/Vanderbilt University; Joanna Burger, Rutgers University- Division of Life Sciences (USA)

### Topic D: Security, Safety and Safeguards

Co-Chairs: Kim Auclair, KD Auclair & Associates, LLC (USA); Hugh Abbott, ABNC Ltd (UK) Sponsor, Organizer and Paper Reviewer: Kim Auclair

D.1 Impacts of the Events on the 11th of September 2001 in the United States on Radiation Protection, the Nuclear Waste Management and the Nuclear Security in Germany - 9304

*Hardi Krumbach*, Reinhard Odoj, Forschungszentrum Jülich GmbH; Hans-Jürgen Steinmetz, Research Centre Jülich (Germany)

D.2 Safe Management of Sealed Radiation Sources in Ghana - 9010 Augustine Faanu, Ghana Atomic Energy Commission; John Justice Fletcher, Graduate School of Nuclear and Allied Sciences; Eric Glover, National Nuclear Research Institute (Ghana)

# Topic E: Communicating Technical Solutions to Stakeholders

Co-Chairs: Cherri Defigh-Price, Parsons; Dale Bignell, Washington Closure Hanford (USA) Sponsor: James Hylko Organizer: Leonel Lagos Paper Reviewer: Cherri Defigh-Price

- E.1 How Nuclear Waste Management Professionals Can Better Communicate the Essentials of Hazardous Materials Management to the General Public - 9036 Richard Cartwright, MECX, LP (USA)
- E.2 Remedial Investigation of Hanford Site Releases to the Columbia River - 9485 Jeff Lerch, Washington Closure Hanford (USA)

## Topic F: The Art of Communication with People on Nuclear Related Topics

Co-Chairs: Cherri Defigh-Price, Parsons; Dale Bignell, Washington Closure Hanford (USA) Sponsor: Leonel Lagos Organizer: James Hylko Paper Reviewer: Cherri Defigh-Price

- F.1 Radiation Safety Response: Simulated Patient Drill at an Academic / Research University - 9027 Kenneth Nichter, University of Louisville (USA)
- F.2 Key Issues of Personnel Education and Training in the Context of Changing Radioactive Waste Management Conception - 9053 *Olga Batyukhnova, SUE SIA Radon* (Russia); Artur Arustamov, Pentek, Inc. (USA); Michael Ojovan, University of Sheffield (UK); Sergey Dmitriev, SIA Radon (Russia);

Zoran Drace, IAEA (Austria)

F.3 Public Education and Radioactive Waste -9389 Sondra Sarten, RS Construction &

Fabrication, Inc. (USA)

- F.4 Sustainable Design and Construction of the Fernald Preserve Visitors Center - 9433 Mary Sizemore, S.M. Stoller Corporation; Jane Powell, US DOE - Office of Legacy Management; Kristine Cornils, Demand Management Inc. (USA)
- F.5 Alternative Wastewater Treatment: On-Site Biotreatment Wetlands at the Fernald Preserve Visitors Center - 9434 John Homer, Cathy Glassmeyer, S.M. Stoller Corporation; Nancy Sauer, URS Corp.; Jane Powell, US DOE - Office of Legacy Management (USA)

### MARCH 4, 2009 WEDNESDAY AM

8:30 am –	Session 51	Room
10:15 am		229A

## Panel: US DOE Procurement and Contracting Opportunities

Co-Chairs: Cathy Hickey, URS Washington Division; John Longenecker, Longenecker & Associates (USA) Sponsor and Panel Reporter: Cathy Hickey Organizers: John Longenecker, Cathy Hickey

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. Major procurements have occurred over the last year and several large contracts have been successfully awarded. Senior contracting officials will discuss the vision of the US DOE and proposed actions. WM2009 Exhibitors are encouraged to attend this panel session (A Technical Session badge is not required).

Panelists: John (Jack) Surash, Deputy Assistant Secretary - Acquisition & Project Mgnt., US DOE; Edward Simpson, Director, Office of Procurement & Assistance Mgmt., US DOE; Ralph Holland, Assistant Director, Office of Contracting - EM CBC, US DOE; and Steve Mournighan, Vice President, Longenecker & Associates, Inc. (USA)

10:15 am –	Session 52	Room
12:00 pm		229A

# Panel: US DOE Contractor's Procurement and Contracting Opportunities

Co-Chairs: Steven Houser, TN & Associates, Inc.; John Coffman, DeNUKE Services, Inc. (USA) Sponsor: Steven Houser Organizers: Steven Houser, John Coffman Panel Reporter: 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. Their 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: D&D 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 51 which focuses on contracting activity directly with the US DOE. WM2009 Exhibitors are encouraged to attend this panel.

Panelists: Ralph Holland, Asst. Director, Office of Contracting - EM CBC, US DOE; John Lehew, President, CH2M HILL Plateau Remediation Company; J.D. Chiou, Vice President, Savannah River Nuclear Solutions; Keith Joy, Manager, Small Business Programs, ORNL; Michael J. Graham, LANL; and Doug Heal, WSMS Hanford (USA) 8:30 am – Session 53 Room 10:15 am 224B

#### Panel: Disposition of US DOE High-Activity Mixed LLW: What Capacity Do We Really Need?

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

This panel will focus on the disposition of US DOE high-activity mixed hazardous/radioactive waste (MW). The US DOE sites have the bulk of the inventory of high-activity MW. There is a window of opportunity for disposition of treated mixed LLW at the US DOE Nevada Test Site, but shipments to date have fallen far short of projections. When that window is closed in 2010 what options could be and/or should be pursued to secure 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?

Panelists: Christine Gelles, Director, Office of Disposal Operations, US DOE; Jeffrey Mousseau, Bechtel BWXT Idaho, LLC; Jhon Carilli, US DOE; Ty Blackford, VP Waste Management, CH2M HILL Plateau Remediation Company; Chris Duy, LANL; Paul Larsen, VP, EnergySolutions; Renee Echols, Sr. VP, Sales and Marketing, Perma-Fix Environmental Services, Inc.; and Michael Lauer, VP, Customer Services, Waste Control Specialists, LLC

10:15 am –	Session 54	Room
12:00 pm		224B

#### Panel: US NRC (10 CFR 61 Regulations) Compared to US EPA (RCRA Regulations) Disposal Sites: Viable Options for US Very Low-Level Waste Disposal

Co-Chairs: Larry Camper, US NRC; James Clarke, Vanderbilt University (USA) Sponsor and Organizer: Larry Camper Panel Reporter: David Esh

This panel will focus on a comparison of the technical and regulatory criteria associated with 10 CFR Part 61 and RCRA sites with an emphasis on addressing the viability of using RCRA sites for disposal of very low-activity radioactive waste (LAW).

The discussion will include attempting to define very LAW and addressing stakeholder concerns regarding the use of RCRA facilities for disposal of very LAW. The panel will also consider the role of clearance and conditional disposal as relates to the issue of using 10 CFR Part 61 sites versus RCRA sites for very LAW disposal.

Panelists: James Kennedy, Senior Project Manager, LLW, US NRC; Christine Gelles, Director, Office of Disposal Operations, US DOE; Daniel Schultheisz, US EPA; William Dornsife, VP, Waste Control Specialists LLC; Lewis Johnson, President, Studsvik, Inc.; and Stephen Romano, President, American Ecology Corporation

8:30 am –	Session 55	Room
12:00 pm		224A

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

Co-Chairs: Bernard Vigreux, French Nuclear Energy Society (France); Edward Ketusky, WSRC (USA)

Sponsor and Paper Reviewer: Bernard Vigreux Organizer: Harry Harmon

### 8:35 Treatment of Corroded Metallic Uranium Fuel - 9213

**Robert Hedvall,** Henrik Stridsman, AB SVAFO; Ella Ekeroth, Bengt Hallberg, Erik Hellsten, Sture Nordlinder, Studsvik Nuclear AB (Sweden); Maria Lindberg, Studsvik UK Ltd (UK)

9:00 Evaluation of a Mobile Hot Cell Technology for Processing Idaho National Laboratory Remote-Handled Wastes -9278

> **Brady Orchard**, Lisa Harvego, Robert Miklos, INL; Frederick Yapuncich, AREVA; Laurent Care, AREVA TA LLC (USA)

9:25 A Guide for Successful Test Facility Installation and Operation: The Hanford Waste Treatment and Immobilization Plant (WTP) Pretreatment Engineering Platform - 9128 Jeffrey Markillie, Washington Division, URS Corporation; W. E. Lawrence, Pacific Northwest National Laboratory; R.A. Gilbert, US DOE (USA)

- 9:50 Assessment and Design for Erosion from High Level Waste Slurries on the Waste Treatment Plant - 9409 Ivan Papp, Garth Duncan, Bechtel National, Inc. (USA)
- **10:20 Development and Testing of a Near Tank Cesium Removal Process** - 9222 **David Blanchard**, Diana Tran, Dean Kurath, Battelle Pacific Northwest Division; Terry Sams, Parsons Infrastructure and Technology (USA)
- 10:45 Impact of Irradiation on Solvent Used in SRS Waste Treatment Processes - 9122 Michael Poirier, John Pareizs, Ned Bibler, SRNL; Samuel Fink, Savannah River Nuclear Solutions (USA)
- 11:10 Status of Mechanical Sludge Removal and Cooling Coil Closure at the Savannah River Site - F Tank Closure Project - 9225 Rudy Jolly, Washington Savannah River Site (USA)
- 11:35 Downstream Impacts of Sludge Mass Reduction via Aluminum Dissolution on DWPF Processing of Savannah River Site High Level Waste - 9382 John Pareizs, Christopher Bannochie, Michael Hay, Daniel McCabe, SRNL (USA)

8:30 am –	Session 56	Room
10:15 am		223

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 and Paper Reviewer: Betty Humphrey Organizer: Sheila Lott Paper Reviewer: Betty Humphrey

- 8:35 TRU Waste Inventory Collection and Work Off Plans for the Centralization of TRU Waste Characterization/Certification at INL - On Your Mark-Get Set - 9410 Sheila Lott, Jerri McTaggart, LANL; Casey Gadbury, US DOE (USA)
- 9:00 Once Upon A Repackaging Effort 9407 Michael Spoerner, SNL; Betty Humphrey, Weston Solutions, Inc. (USA)
- 9:25 Transuranic (TRU) Waste Repackaging at the Nevada Test Site - 9287

Patrick Arnold, CH2M HILL - National Security Technologies; **Frank Disanza**, US DOE Nevada Site Office; Gary Pyles, National Nuclear Security Administration; John Ciucci, NSTEC (USA)

9:50 Innovative Applications of In-Situ Gamma Spectroscopy for Non-Destructive Assay of Transuranic Wastes - 9344 Dave Watters, Joseph Weismann, Cabrera Services, Inc. (USA)

10:15 am –	Session 57	Room
12:00 pm		223

Yucca Mountain: Perspectives from Around the Mountain

Co-Chairs: Nancy Zacha, Radwaste Solutions; Linda Lehman, CH2M HILL Plateau Remediation Company (USA) Sponsor: Leif Eriksson Organizer and Paper Reviewer: Linda Lehman

10:20 The 2001 and 2008 Yucca Mountain Repository Standards: Errors Due to a Legal Dilemma That Needs to be Resolved - 9078 Dade Moeller, Dade Moeller & Associates (USA)

10:45 Effect of Physical Processes on Radionuclide Release from Partially Failed Containers - 9260 Lubna Hamdan, John Walton, Arturo Woocay, University of Texas at El Paso (USA)

11:10 The Yucca Mountain Repository - Too Little, Too Late - 9005 Leif Eriksson, Consultant; David Pentz, The Pentz Consulting Company, Inc. (USA)

8:30 am –	Session 58	Room
10:15 am		222C

#### Worldwide Technical Innovations in HLW Treatment - Waste Chemistry

Co-Chairs: Renee Spires, WSRC; Eric Tchemitcheff, AREVA Federal Services LLC (USA) Sponsor: Christophe Girold Organizers: Terri Fellinger, Keith Miller Paper Reviewer: Tom Brouns

8:35 Aluminum Solubility Model for Hanford		
Tank Waste Treatment - 9123		
Stephen Agnew, Columbia Energy; Jacob		
Reynolds, URS Washington Div Johnston, Purdue University (US		

9:00 Boehmite Dissolution Studies Supporting High Level Waste Pretreatment - 9383 *Reid Peterson*, Renee Russell, Lanee Snow, Pacific Northwest National Laboratory (USA)

9:25 Full-Scale Testing of Pipeline Unplugging Technologies - NuVision's Fluidic Wave-Action Technology - 9236 Seckin Gokaltun, Dwayne McDaniel, Jose Varona, Amer Awwad, David Roelant, Florida International University; Erich Keszler, NuVision Engineering Inc. (USA)

9:50 Modeling of Sediment Bed Behavior for Critical Velocity in Horizontal Piping - 9263 David Rector, Adam Poloski, Mark Stewart, PNNL (USA)

10:15 am –	Session 59	Room
12:00 pm		222C

### Strategic Options for Spent Fuel Management

Co-Chairs: Gérald Ouzounian, ANDRA (France); Keith Miller, NNL (UK) Sponsor: Leif Eriksson Organizer: Gérald Ouzounian Paper Reviewer: Harry Babad

10:20 International Atomic Energy Agency (IAEA) Activity on Technical Influence of High Burnup UOX and MOX Water Reactor Fuel on Spent Fuel Management -9065 Zvonko Lovasic, IAEA (Austria); Robert

Einziger, US NRC (USA)

10:45 Nuclear Proliferation Risk Mitigation Approaches and Impacts in the Recycle of Used Nuclear Fuel in the USA - 9059 Stuart Arm, Chris Phillips, EnergySolutions (USA); Kevin Hesketh, Robert Gregg, NNL (UK)

#### 11:10 Safe and Efficient Management of Waste at Sellafield - 9461 *Alan Jackson*, NDA; Stephen Ellery, Sellafield LTD (UK)

8:30 am –	Session 60	Room
12:00 pm		222B

### Operating Experience in the Treatment and Storage of LLW, ILW, MW, NORM and TENORM

Co-Chairs: Heinz Kroeger, TuV Nord EnSys Hannover (Germany); Paul Macbeth, US DOE Richland Operations Office (USA) Sponsor and Paper Reviewer: Heinz Kroeger Organizers: Luis Valencia, David Abbott

- 8:35 The Role of the National Low Level Waste Repository In Delivering New Solutions for the Management Of Low Level Wastes in the UK - 9215 *Martin Walkingshaw, Jonathan Evans, LLW Repository Ltd (UK)*
- 9:00 Operational Experience in the Management of Radioactive Waste from Past Practices - 9362 Azucena Sanhueza-Mir, Comision Chilena de Energia Nuclear (Chile)
- 9:25 Lessons Learned from Independent Technical Reviews of US DOE Low-Level Radioactive Waste Landfills/Disposal Facilities - 9056 Vince Adams, Dinesh Gupta, US DOE; John Smegal, Legin Group, Inc. (USA)
- 9:50 Options for Disposal and Reapplication of Depleted Uranium Hexafluoride - 9011 Stanley Fitch, Trinitek Services, Inc. (USA)
- 10:20 Air Emissions Sampling from Vacuum Thermal Desorption for Mixed Wastes Designated with a Combustion Treatment Code for the EnergySolutions LLC Mixed Waste Facility - 9099 Otis Willoughby, Utah Department of Environmental Quality (USA)
- 10:45 Savannah River Site Saltstone Disposal Facility Performance Assessment Update - 9240

*Jeffry Newman*, Savannah River Nuclear Solutions (USA)

11:10 Buffer Construction Methodology in Demonstration Test for Cavern Type Disposal Facility - 9182 Yoshihiro Akiyama, Takahiro Nakajima, Katsuhide Matsumura, Kenji Terada, Takao Tsuboya, Radioactive Waste Management Funding and Research Center; Kazuhiro Onuma, Hazama Corporation; Tadafumi Fujiwara, Taisei Corporation (Japan)

11:35 Experiences on Management of the Bituminization Project at the Southwest Radioactive Waste Management Centre in		8:30 am – 10:15 am	Session 62	Room 229B	
	<b>China</b> - 9049 <b>Guo Zhimin</b> , Sichuan I Protection Engineering	Environmental	Nuclear Powe Waste Manage	r Plant Solid, Liquid ement	and Wet
8:30 12:00		61 Room 222A			
	dwide Waste Managem sight Crosscutting Pro		Ū.	er: Wolfgang Steinwar	z
PEC0 Spon	hairs: Ray Clark, US EP OS Management Service sor and Organizer: Ray ( r Reviewer: Christopher	s, Inc (USA) Clark	NRC Clas Edward P (USA)	he Paradigm for Mar ss B/C Waste - 9268 Posivak, John LePere,	WMG, Inc.
8:35	The Challenge of Deve Holistic Waste Manag Support the Nuclear F 9177 <i>Hitoshi Makino</i> , <i>Hiroya</i> <i>Hioki, JAEA (Japan); la</i>	ement Approach to Power Renaissance - Iki Umeki, Kazumasa	Facility a Ignalina I Burkharo Fernánde Technolog	Vaste Management T nd Spent Fuel Storag Nuclear Power Plant I Koenning, Ronny Zi z Puga, Johannes Ra gies GmbH (Germany fective Method for F	<b>ge at the</b> - 9192 jehm, José usch, NUKEM )
9:00	McKinley Consulting (S The Confusing World Dosimetry - 9444 Michael Boyd, US EP	of Radiation	Radioactive Waste Treatment - 9157 Gagik Martoyan, Sahak Intsheyan, S. Tonikyan, S. Movsisyan, Scientific - Industr CJSC AREV; Gagik Karamyan, AREVA CJ		
9:25	The Importance of En Industry Cooperation Protection, Waste Mai Decommissioning - V Nuclear Industry - 945 Sylvain Saint-Pierre, V Association (UK)	hancing Worldwide in Radiological nagement and iews from the Global	(Armenia) 9:50 Modification of the Radioactive Wa Treatment Technology in the Hung		Hungarian , Ivan Gresits, ogy and
9:50	US Continuing Involve Convention - 9169		Schunk, N 10:15 am –	NPP Paks (Hungary) Session 63	Room
	Edward Regnier, Leroy Tonkay, US DOE; <b>Dan</b> EPA; Giorgio Gnugnoli,	iel Schultheisz, US	12:00 pm	06331011 03	229B
10:20	The US EPA's Public Standards for Yucca I (40 CFR Part 197) - 90	Health and Safety Mountain, Nevada	Nuclear Powe		
10:45	Ray Clark, US EPA (U 5 Radiological Protectic Environment, Includir Species - 9451	on of the	Sean Bushart,	Maisler, Enercon Ser EPRI (USA) nizer and Panel Repo	
11.10	Sylvain Saint-Pierre, N Association (UK) Revision to US DOE C		vendors and A	focus on issues from r rchitect/Engineers on	radioactive
11.10	How it Affects US DOE Joseph Birchfield, Alli (USA)	E Sites - 9003		es facing the licensing plants in the United S	
			58		

The generations of new plants that will be built in the US incorporate many design improvements, including advancements in radioactive waste processing. Reactor vendors will discuss radioactive waste system aspects of designs certified by the US NRC. Architect/Engineers will address aspects of new radioactive waste system operations described in combined license (COL) applications.

8:30 am –	Session 64	Room
12:00 pm		221C

### D & D of US DOE Facilities

Co-Chairs: Andrew Szilagyi, US DOE; Julia Tripp, Idaho National Laboratory (USA) Sponsor: Andrew Szilagyi Organizer and Paper Reviewer: Julia Tripp

- 8:35 Determining the Adequacy of Process Knowledge for Facilities to be Transitioned to Deactivation and Decommissioning (D&D) - 9002 Joe Santos, Savannah River Nuclear Solutions (USA)
- 9:00 Innovative Graded Approach to D&D Configuration Management - 9393 Charles Kronvall, R. Scott Spencer, Fluor Hanford; Frank Muller, CHPRC (USA)
- 9:25 Decontamination and Decommissioning of Radiologically Contaminated Facilities - 9118 Robert Storms, TDEC/DOE-O; Stuart
- Walker, US EPA (USA)
  9:50 Independent Verification of Non-Destructive Assay Characterization Results at the East Tennessee Technology Park K-25 Building, Oak Ridge, Tennessee, and Lessons Learned for Future Uranium Enrichment Facility Demolition Activities - 9271 Sarah Roberts, Bill Riley, Tim Vitkus, Oak Ridge Associated Universities; James D. Kopotic, Karen Deacon, US DOE (USA)
- 10:20 Robotically Deployed Laser Imaging for Facility Dimensional Characterization -9096

Robert Fogle, Deno Karapatakis, **John Gladden**, SRNL; Tony Long, Joe Santos, Savannah River Nuclear Solutions; Shirley Frush, US DOE EM (USA)

10:45 Demolishing a Cold-War-Era Fuel-Storage Basin Superstructure Laden with

#### Asbestos - 9475

*Earl Lloyd*, Mike Stevens, Fluor Government Group; Lloyd Zinsli, Craig Larson, Mary Ann Green, Fluor Hanford; Tom Orgill, EnergySolutions; Ellen Dagan, US DOE (USA)

11:10 Historical Artifact Collection at the East Tennessee Technology Park - 9196 Steve Goodpasture, Steven Wood, CDM (USA)

8:30 am –	Session 65	Room
12:00 pm		221B

Progress in Cleanup and Approaches to Expedite Remediation Decisions Using Modeling and Risk Evaluation

Co-Chairs: Donald Goebel, Safety & Ecology Corporation; Steven Houser, TN & Associates, Inc. (USA)

Sponsor and Paper Reviewer: Donald Goebel Organizers: Angie Jones, Donald Goebel

8:35 Implementing New Approaches to Assess Health Risks: Age-Dependent Factors -9351

John Peterson, **Margaret MacDonell**, ANL; Karen Keil, US ACE, Buffalo District (USA)

- 9:00 Site Closure Strategy Model for Creosote Site - 9125 Frederic Coll, URS Corporation -Washington Division (USA)
- 9:25 Enhancing a Groundwater Remedy for TCE with ISCO - 9046 Del Baird, CDM; Steven Thompson, CDM Federal Services (USA)
- 9:50 Life-Cycle Risk Analysis for US DOE Wastes in Shallow Land Burial - 9390 *Kevin Brown*, David Kosson, Charles Powers, CRESP / Vanderbilt University; James Clarke, Frank Parker, Vanderbilt University (USA)
- 10:20 Remediation Approach for the Integrated Facility Disposition Project at the Oak Ridge National Laboratory - 9069 George Stephens, Paula Kirk, ORNL (USA)
- 10:45 The Remediation of Hanford's Last LLW Burial Grounds in the 300 Area: 618-7 and 618-1 - 9487 Matthew J. Haass, Washington Closure Hanford (USA)

11:10 Status of the Environmental Cleanup of the Idaho National Laboratory - 9037 Allen Schubert, CH2M-WG Idaho, LLC (USA)

8:30 am –	Session 66	Room
12:00 pm		221A

US DOE, Site Specific and Citizens Advisory Board (CABs) - Public Involvement Makes a Difference

Co-Chairs: Melissa Nielson, US DOE; Virginia Dickert, WSRC (USA) Sponsor: Lance Mezga Organizers: Melissa Nielson, W.T. (Sonny) Goldston Paper Reviewer: W.T. (Sonny) Goldston

- 8:35 US DOE's Environmental Management Site-Specific Advisory Board – 15 years of Community Involvement - 9315 Melissa Nielson, Catherine Brennan, US DOE (USA)
- 9:00 The US DOE Environmental Management Oak Ridge Site Specific Advisory Board: A Review of the ORSSAB's Impact on Clean Up Decisions on the Oak Ridge Reservation - 9395 Lance Mezga, ORNL; David Adler, US DOE (USA)
- 9:25 Strategies for Public Involvement at the West Valley Demonstration Project - 9242 Thomas Attridge, New York State Energy Research and Development Authority; Bryan Bower, US DOE; John Chamberlain, Sonja Allen, West Valley Environmental Services LLC (USA)
- 9:50 Rural Communities and US DOE Environmental Management Programs at the Nevada Test Site: Do Outreach Efforts Matter? - 9048

*Helen Neill*, Jennifer Ward, University of Nevada, Las Vegas; Kelly Snyder, US DOE, Nevada (USA)

10:20 Envisioning Communications with Future Stakeholders - A Case Study Using the In-Situ Decommissioning of P-Reactor -9285

**Donna Antonucci**, Savannah River Site-CAB (USA)

10:45 Facilitating Site-Specific and Citizens Advisory Boards: Running Effective Meetings that Involve Complex Technical Issues - 9353

Jenny Freeman, Strata-G, LLC (USA)

11:10 Stakeholder Participation in the Environmental Cleanup of Radioactive Wastes in the UK, Japan and United States - 9024

Christian Poppeliers, Augusta State University, Dept of Physics (USA); John Whitton, Nexia Solutions (UK); **Bill Lawless**, Paine College (USA); Mito Akiyoshi, Senshu University (Japan)

8:30 am –	Poster Session 67	Room
12:30 pm		2nd Floor

Posters: Crosscutting – A Packaging & Transportation – B-C D & D – D-F

# Topic A: Crosscutting Policies, Programs and Technologies

Co-Chairs: Charles Waggoner, Institute for Clean Energy Technology (USA); Chris Chadwick, Microfiltrex (UK) Sponsor: John Mathieson Organizers: Chris Chadwick, Duane Adamson Paper Reviewer: Charles Waggoner

- A.1 Functionalizing and Activating Permeable Polymeric Materials to Provide Species Removal and Detection - 9252 *Claire Jarmey-Swan*, Chris Chadwick, Microfiltrex (UK)
- A.2 Remediating Contaminated Sediments in the Ashtabula Harbor as Part of the Ashtabula River Area of Concern: A Collaboration Success Story - 9521 Isaac Diggs, Sr., EnergySolutions, LLC; Jeffrey Case, TerranearPMC, LLC; Robert Rule, de maximis, Inc.; Matthew Snyder, Steven Vriesen, US ACE Buffalo District (USA)

## Topic B: Technical and Analytical Aspects of Radioactive Materials Packaging

Co-Chairs: Richard Yoshimura, Sandia National Laboratory; Larry Harmon, Project Enhancement Corporation (USA) Sponsor and Organizer: Paul Jones Paper Reviewer: Richard Yoshimura

- B.1 Amendment Process for the Mixed Oxide Fresh Fuel Package - 9388 Frederick Yapuncich, AREVA; Richard Clark, Shaw AREVA MOX Services; Rick Migliore, AREVA Federal Services LLC (USA)
- B.2 Development of a Model for Predicting Transient Hydrogen Venting in 55-Gallon Drums - 9416 *Michael Garcia, Jason W. Apperson, James*

S. Clemmons, Michael J. Romero, John C. Sur, Duan Z. Zhang, LANL (USA)

- B.3 A Need for a New Joining Technology for the Closure Welding of Radioactive Materials Containers - 9516 Gary Cannell, Fluor Enterprises, Inc.; Glenn Grant, PNNL; Burt Hill, US DOE (USA)
- B.4 5000th Mosaik Cask Delivered in 2007 a Story of Success - 9419 Olaf Oldiges, Hans-Jürgen Blenski, GNS mbH (Germany)

## Topic C: Operational Topics in Radioactive Materials Transportation

Co-Chairs: Richard Yoshimura, SNL; Larry Harmon, Project Enhancement Corporation (USA) Sponsor and Organizer: Paul Jones Paper Reviewer: Larry Harmon

- C.1 Intermodal Transportation of Commercial Spent Nuclear Fuel (SNF) - 9328 Stephen Schmid, Bechtel-SAIC Company, LLC; Ralph Best, JAI Corporation; Alexander Thrower, US DOE (USA)
- C.2 Waste Information Management System with Integrated Transportation Forecast Data - 9097 Walter Quintero, Leonel Lagos, Peggy Shoffner, Himanshu Upadhyay, Florida Intl

University / Applied Research Center (USA)

Topic D: D & D Characterization

Co-Chairs: Rick Demmer, INL; Jas Devgun, Sargent & Lundy, LLC (USA) Sponsor: Jas Devgun Organizer: Julia Tripp Paper Reviewer: Rick Demmer

D.1 Characterization of Contaminated Stacks at Nuclear Facilities – 9355 *William Mendez*, (DOE Fellow), Florida Int. University / Applied Research Center; Leonel Lagos Florida Int. University / Applied Research Center (USA)

D.2 Previous Rehabilitation Program of Radioactive Objects of Kirovo-Chepetsky Chemical Plant - 9430

Iliya Kim, Maxim Gizay, Center for Control of Federal Property; Anatoly Volkovich, Alexander Chesnokov, Russian Research Center; Sergey Smirnov, **Victor Volkov**, Yury Zverkov, Anatoly Shisha, Sergey Semenov, Russian Research Center Kurchatov Institute (Russia)

- D.3 Preparation and Characterization of Coreshell Polymer Type Polymer Emulsion for a Measurement of the Radioactive Contamination - 9292 *Ho-Sang Hwang, Bum-Kyoung Seo, Dong-Gyu Lee, Kune-Woo Lee, KAERI (Korea)*
- D.4 The Cold & Dark Process at the Savannah River Site - 9509 Brian K. Lewis, Michael L. Willis, John Gilmour, Savannah River Nuclear Solutions (USA)

### Topic E: D & D Planning and Tools

Co-Chairs: J. Rick Dearholt, CDM (USA); Michiya Sasaki, Central Research Institute of Electric Power Industry (Japan) Sponsor: Detlef Schmidt Organizer: Julia Tripp Paper Reviewer: Andrew Szilagyi

- E.1 Inventories of Nuclear Facility: Methodological Aspects - 9313 Cyril Moitrier, Vincent Vanel, CEA (France)
- E.2 A Quantitative Risk Assessment Approach to Hazards for a Decommissioning Safety of Nuclear Facilities - 9293 *Kwan Seong Jeong*, *Kune-Woo Lee*, *Dong-Gyu Lee*, *KAERI*; *HyeonKyo Lim*, *Chungbuk National University (Korea)*
- E.3 Decision Support Tool for Prioritization of Surveillance and Maintenance Investment -9342

**Leydi Velez**, (DOE Fellow), Florida Int. University / Applied Research Center; Thomas Conley, UT-Battelle LLC/ ORNL (USA)

E.4	Decontamination and Decommissioning at Small Nuclear Facilities: Facilitating the Submission of Decommissioning Funding Plans - 9420 Doris Minor, Attenuation Environmental Company; Anine Grumbles, Washington State Department of Health (USA)
E.5	Implementation of 10 CFR 20.1406 through Life Cycle Planning for Decommissioning - 9324 Bill Ott, Edward O'Donnell, US NRC (USA)
E.6	<b>D&amp;D Knowledge Management Tool</b> - 9098 Walter Quintero, Peggy Shoffner, Leonel Lagos, <b>Himanshu Upadhyay</b> , Florida Intl University / Applied Research Center; Larry Waggoner, Fluor Hanford; John De Gregory, US DOE-HQ (USA)

E.7 Decommissioning Cost Estimation of Nuclear Research Facilities Application to French Atomic Energy Commission (CEA) - 9081 Cyril Moitrier, Vincent Vanel, CEA; Jean-Guy

Nokhamzon, CEA/SACLAY (France)

### Topic F: D & D Facilities/Waste

Co-Chairs: J. Rick Dearholt, CDM (USA); Jas Devgun, Sargent & Lundy, LLC (USA) Sponsor: Detlef Schmidt Organizer: Julia Tripp Paper Reviewer: J. Rick Dearholt

- F.1 Preparing the MR Reactor for Decommissioning in the Russian Research Center "Kurchatov Institute" - 9074 Victor Volkov, Yury Zverkov, Sergey Semenov, Anatoly Shisha, Russian Research Center Kurchatov Institute; Vyacheslav Kolyadin, Alexey Lemus, Vitaly Pavlenko, Sergey Fadin, RRC (Russia)
- F.2 Decommissioning of a Research & Development Tritium Facility - 9274 Kevan Ticehurst, AWE PLC (UK)
- F.3 A New Backfill Material for Re-Packaging Corroded Waste Drums - 9366 Heidi Sjoelin Thomsen, Anne Soerensen, Dansk Dekommissionering (Denmark)
- F.4. Safe and Inexpensive Complete Conditioning of Activated Reactor Graphite - 9308 Hans-Frieder Beer, Paul Scherrer Institute (Switzerland)

F.5 Phenix Reactor Dismantling Flowsheet -9309

*Laure Bénévise*, Christophe Beretti, CEA (France)

- F.6 Remediation Activity of SUE SIA Radon: Site Characterization, Preparation of Decontamination Plan, Decontamination and On-Site Waste Management - 9156 Sergey Mikheykin, A.S. Barinov, SUE SIA Radon (Russia)
- F.7 Closing the Loop on the Manhattan Project - 9146

*Mark Orren*, Natalie Callahan, Ian Harman, Attention IT, Inc. (USA)

MARCH 4, 2009	WEDNESDAY PM
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1:30 pm –	Session 68A	Room
5:00 pm		229A

### Closing Panel: The International Decommissioning Network of the IAEA

Co-Chairs: Paul Dinner, IAEA (Austria); Albert Freitag, Burns & Roe (USA) Sponsor, Organizer and Panel Reporter: Michele Laraia

This is the closing panel on the IAEA International Decommissioning Network (IDN) sessions at WM2009. The successful launch at the IAEA General Conference in September 2007 of the IDN marked a quantum leap in IAEA's traditional approach to international cooperation in nuclear decommissioning. The IDN was established to promote the vision of prompt, open, and efficient worldwide sharing of practical and effective decommissioning experience leading to safe, economic and timely dismantlement of disused nuclear facilities. The purpose of the panel, reenforced by the final summary (Wrap-Up) remarks by the chair would be to "close the circle" with the organizational Panel Session.

Panelists: Abrie Visagie, Senior Manager, Necsa (South Africa); Jean-Jacques Grenouillet, Decommissioning Project Manager, EDF (France); Vladan Ljubenov, Acting Director of the Centre for Nuclear Technologies and Research, Vinca Institute of Nuclear Sciences (Serbia); Andrew Szilagyi, D&D Program Leader, US DOE (USA); Grete Rindhal, Institute for Energy Technology; and Wayne Norton, President & CEO, Connecticut Yankee (USA) 1:35 General Benefits Associated with the Wider Cooperation in Decommissioning -9367 Abria Visagia, Necsa (South Africa)

Abrie Visagie, Necsa (South Africa)

1:30 pm –	Session 68B	Room
5:00 pm		224B

## Panel: US DOE Oak Ridge Cleanup Plans and Contracting Opportunities: IFDP and ETTP

Co-Chairs: Erich Evered, ETEBA President; Gerald Boyd, US DOE, Oak Ridge Office (USA) Sponsor and Organizer: Erich Evered Panel Reporter: Cathy Hickey

This panel will focus on the Integrated Facilities Disposition Program (IFDP) of the US DOE. It is a US \$9 to 15 billion plan to eliminate contaminated legacy facilities and complete environmental remediation at two major operating sites in Oak Ridge, Tennessee – the Y-12 National Security Complex and the central campus of Oak Ridge National Laboratory.

Work under the IFDP is slated to begin in 2010-11 and continue to approximately 2039. In addition, much cleanup work will remain at a third Oak Ridge site – East Tennessee Technology Park (ETTP), formerly known as the K-25 Gaseous Diffusion Plant – when demolition of the K-25 building is completed in 2011. US DOE panelists in this session will describe the IFDP and provide timely updates on DOE's plans for implementing its objectives. They will also provide information on upcoming contract opportunities under the IFDP and the remaining program at ETTP.

Panelists from Y-12 and ORNL will provide details of IFDP facilities and challenges at the respective sites. The final panelist will present information on a developing partnership between the Oak Ridge and United Kingdom nuclear and environmental business communities.

Panelists: Gerald Boyd, Manager, US DOE, Oak Ridge Office; J.T. Howell, Federal Project Director - IFDP, US DOE Oak Ridge Office; John Krueger, Sr. Director – Waste Operations and IFDP, B&W Y-12; Lee McGetrick, IFDP Manager, ORNL; and Angie Jones, Vice President, AMEC (USA)

1:30 pm –	Session 69	Room
5:00 pm		224A

Worldwide Technical Innovations in HLW Treatment - Technology Demonstration

Co-Chairs: Bill Wilmarth, SRNL; Tom Brouns, Battelle PNNL (USA) Sponsor: Christophe Girold Organizers: Terri Fellinger, Keith Miller Paper Reviewer: Terri Fellinger

1:35 Demonstration of the Cold Crucible Induction Melter Technology under the US DOE EM Advanced Remediation Technologies (ART) Program - 9237 Eric Tchemitcheff, Joseph Buchanan, AREVA Federal Services LLC; Kurt Gerdes, US DOE; Sharon Marra, WSRC; Jay Roach, INL (USA); Christophe Girold, CEA; Laurent David, SGN; Catherine Veyer, Consultant (France)

- 2:00 Vitrification of Savannah River Site HLW Sludge Simulants at CEA Marcoule's Industrial-scale Cold Crucible Induction Melter Demonstration Platform - 9186 *Milene Delaunay*, Alain Ledoux, Jean-Luc Dussossoy, Patrice Boussier, J. Lacombe, Christophe Girold, CEA; Catherine Veyer, Consultant (France); Eric Tchemitcheff, AREVA Federal Services LLC (USA)
- 2:25 Testing and Startup of the Savannah River Site Integrated Salt Disposition Process -9193

Michael Poirier, **Thomas P. Peters**, Fernando Fondeur, Charles Nash, Steven Brown, SRNL; Earl Brass, WSRC; Samuel Fink, Savannah River Nuclear Solutions (USA)

2:50 Salt Processing through Ion Exchange at the Savannah River Site - Selection of Exchange Media and Column Configuration - 9198 Renee Spires, Timothy Punch, WSRC;

Daniel McCabe, SRNL; Paul Taylor, ORNL (USA)

3:20 Fluidized Bed Steam Reforming (FBSR) Technology: High Level Waste (HLW) Organic and Nitrate Destruction Prior to Vitrification - 9406

**Carol Jantzen**, Michael Williams, Gene Daniel, Paul Burket, Charles Crawford, SRNL (USA)

- 3:45 Alternate Methods for Eluting Cesium From Spherical Resorcinol-Formaldehyde Resin - 9160 Paul Taylor, ORNL; Lauren Johnson, University of Tennessee (USA)
- 4:10 SOGIN Enriched Uranium Extraction (EUREX) Plant Spent Fuel Pool Cleaning and Decontamination Utilizing the Smart "Safe" Solution - 9317

Kent Forrester, **Mark Denton**, Kurion, Inc. (USA); Werner Botzem, Nukem Technologies GmbH (Germany); Michele Gili, Sogin (Italy)

1:30 pm – Session 70 Room 5:00 pm 223

## Underground Research Laboratories and Demonstration Facilities: An Update

Co-Chairs: Louis Londe, ANDRA (France); Frank Hansen, SNL (USA) Sponsor and Organizer: Chuan-Fu Wu Organizers: Gérald Ouzounian, Louis Londe

- 1:35 The Design of Disposal Areas for High-Level Long-Lived Waste for the Andra Project: A Strong Challenge Requiring Demonstrations - 9018 Jean-Michel Bosgiraud, Louis Londe, Daniel Delort, Olivier Glenet, ANDRA (France)
- 2:00 Development of Shotclay System to Construct High-Quality Buffer Materials -9057

*Makoto Nakajima*, Kajima Corporation (Japan)

2:25 Underground Collocation of Nuclear Power Reactors and Repository to Facilitate the Post-Renaissance Expansion of Nuclear Power - 9113

*Wes Myers*, Ned Elkins, Los Alamos National Laboratory (USA)

2:50 Development of Next-Generation Technology of Integrated Site Characterization of Deep Geological Repositories - 9132

> *Hideaki Osawa*, Hiroyuki Umeki, Kunio Ota, Katsuhiro Hama, Atsushi Sawada, Shinji Takeuchi, Takeshi Semba, JAEA; Hiroyasu Takase, Quintessa Japan (Japan); Ian G. McKinley, McKinley Consulting (Switzerland)

3:20 The Geological Disposal Concepts for the High Level Radioactive Wastes from Spent Fuel Recycling Process in Korea - 9297 Jong-Youl Lee, Dong Keun Cho, Min Soo Lee, Heu-Joo Choi, Jong Won Choi, Jeong Hoon Cha, Korea Atomic Energy Research Institute (Korea)

- 3:45 Disposal Project for Low-Level Long-Lived Radioactive Waste - 9089 Gérald Ouzounian, Odile Ozanam, ANDRA (France)
- 4:10 Reversibility and Retrievability, a Proposal for An International Scale - 9506 Gérald Ouzounian, Jean-Michel Hoorelbeke, Jean-Noel Dumont, ANDRA (France)
- 4:35 Interregional Training Course on Radioactive Waste Disposal Technologies -9536 Andrew Orrell, Frank Hansen, SNL; Abe Van Luik, US DOE (USA)

1:30	pm –	Session 71	Room
5:00	pm		222C

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 and Paper Reviewer: Allen Roos Organizers: Allen Roos, Steven Brown

### 1:35 Radionuclide Data Quality Evaluation Guidance - 9284 Brian Tucker, The Shaw Group (USA); David

Evans, US Army Corps of Engineers (USA); Michael Winters, Shaw Environmental & Infrastructure Group (USA)

- 2:00 Determination of Preliminary Remediation Goals at an Industrial FUSRAP Site - 9164 Joseph Weismann, MD Rahman, Cabrera Services, Inc.; George Bock, District of Philadelphia, US ACE; Brian Hearty, US ACE; Eric Barbour, US ACE - Baltimore; Karen Keil, US ACE-Buffalo District (USA)
- 2:25 Use of and Lessons Learned in Using a Surrogate Radionuclide Approach in the Remediation of Radiologically Impacted Soil and Sediments at the Middlesex Sampling Plant Site - 9286 David Hays, Jough Donakowski, James Moore, US ACE (USA)
- 2:50 Evaluation of Uranium Enrichment/ Depletion and Recycled Uranium Residuals in Soils and Groundwater at the Harshaw FUSRAP Site - 9336

*Kurt Picel*, Robert Johnson, John Peterson, ANL (USA); Karen Keil, US ACE, Buffalo District (USA); Andrea Kolhoff, Harold Spector, US ACE (USA); Jeffrey DeVaughn, SAIC (USA)

- 3:20 Quantifying Uncertainty in Contaminated Soil Volume Estimates - 9320 Allen Roos, David Hays, US ACE; Robert Johnson, Lisa Durham, ANL; Michael Winters, Shaw Environmental & Infrastructure Group (USA)
- **3:45 Real-Time Techniques for Beryllium** Analysis in Soils - 9372 *Robert Johnson*, Lisa Durham, ANL; Jacob Zdrojewski, David Frothingham, US ACE; Peter Lorey, US ACE - Buffalo District (USA)
- 4:10 Alternative Sample Preparation of Soils Containing Thorium at an Environmental Protection Agency Superfund Site - 9380 David Hays, John Beckman, US ACE (USA)
- 4:35 Analysis of Spatial Correlations of Metals at the Former Harshaw Chemical Company FUSRAP Site - 9341 William Frederick, US ACE; Robert Johnson, Kurt Picel, ANL (USA)

1:30 pm –	Session 72	Room
5:00 pm		222B

## Innovative Field Monitoring for Environmental Remediation

Co-Chairs: Donna Guillen, Idaho National Laboratory; Albert Kruger, US DOE (USA) Sponsor and Organizer: David Eaton Paper Reviewer: Donna Guillen

1:35 Airborne Radiological Characterization Surveys in Inaccessible Areas Due to the Presence of Munitions and Explosives of Concern (MEC) - 9358

**Greg Miller**, Shawn Googins, Dave Watters, Joseph Weismann, Cabrera Services, Inc.; Gregory Komp, HQ Department of the Army; Mike Styvaert, US Army, JMC (USA)

2:00 An Advanced Radiological Survey and Mapping System - 9359 Jay McCown, Charles Waggoner, Institute for Clean Energy Technology; Donna Rogers,

Mississippi State University ICET (USA)

2:25 High-Volume Surface Water Monitoring for Characterization of Low PCB Levels - 9131 Del Baird, Wendy Stewart, CDM (USA)

### 2:50 Effective Detection of Buried Radioactive Waste - 9295

**Qian Du**, Nicolas Younan, Mississippi State University (USA); Charles Waggoner, Institute for Clean Energy Technology (USA); Donna Rogers, Mississippi State University (USA)

- 3:20 Field Application Results of an Innovative, Low-Tech Instrument for Field Screening of Radioactivity in Soil Samples - 9197 Roger Vinson, Restoration Services, Inc.; Kenneth Skinner, Mid-Atlantic Technology, Research and Innovation Center; Peter Salpas, Salpas Consulting (USA)
- 3:45 Analysis of Nitroaromatic and Nitramine Explosives by Atmospheric Pressure Chemical Ionization / High Performance Liquid Chromatography / Mass Spectrometry / Mass Spectrometry - 9025 Benjamin Hicks, Wenjun Han, Test America St. Louis (USA); James Robben, Washington University School of Medicine (USA)
- 4:10 Assessing Contaminant Migration and Risk through Passive Interstitial Water Samplers - 9347 Danny Reible, University of Texas; Margaret MacDonell, ANL (USA)
- 4:35 Development of Fluorescence Spectral Imaging for Location of Uranium Deposited on Surfaces - 9163

**David Monts**, Guangjun Wang, Yi Su, Ping-Rey Jang, Mississippi State University; Charles Waggoner, Institute for Clean Energy Technology (USA)

1:30 pm –	Session 73	Room
3:15 pm		222A

### Waste Certification, Acceptance and Disposal

Co-Chairs: Linda Beach, Waste Control Specialists LLC (USA); Heinz Kroeger, TuV Nord EnSys Hannover (Germany) Sponsor: Heinz Kroeger Organizers: Kenneth Guay, Heinz Kroeger Paper Reviewer: Linda Beach

#### 1:35 Overview of Nevada Test Site Radioactive and Mixed Waste Disposal Operations -9117

Jhon Carilli, US DOE; Susan Krenzien, Navarro Research & Engineering, Inc; Gregg Geisinger, Sydney Gordon, National Security Technologies, LLC; Barbara Quinn, SNJV-C/O US DOE (USA)

- 2:00 The UK Process for Assessment of Waste Conditioning Proposals - 9500 Stephen Barlow, UK NDA; Simon Wisbey, UK Nirex Ltd. (UK)
- 2:25 Very Low Activity Waste Disposal Facility Recently Commissioned as an Extension of El Cabril LILW Disposal Facility in Spain - 9014

**Pablo Zuloaga**, Mariano Navarro, ENRESA (Spain)

2:50 The Very Strict Waste Acceptance Criteria of the Saligny L/ILW Repository in Romania Drastically Limits the Technology Selection for the Waste Treatment and Conditioning Facility - 9200 Gheorghe Barariu, National Authority for Nuclear Activity, Subsidiary of Technology and Engineering for Nuclear Projects (Romania)

1:30 pm –	Session 74	Room
3:15 pm		221C

# Performance Assessment of Geological Disposal Systems

Co-Chairs: Tjalle Vandergraaf, Providence College (Canada); Ming Zhang, Geological Survey of Japan, AIST (Japan)

Sponsor and Paper Reviewer: Ming Zhang Organizers: Tjalle Vandergraaf, Andrew Martin

1:35 Experimental Studies on Retardation Properties of Granite Specimens from Grimsel Test Site, Switzerland - 9368 *Ming Zhang*, Geological Survey of Japan, AIST (Japan)

### 2:00 THEREDA - The Thermodynamic Reference Database for Nuclear Waste Disposal in Germany - 9187

Helge Moog, Sven Hagemann, Horst-Jürgen Herbert, Thomas Willms, Gesellschaft für Anlagen - und Reaktorsicherheit; Marcus Altmaier, Institut für Nukleare Entsorgung; Vinzenz Brendler, FZ Dresden-Rossendorf e.V.; Sven Gester, Forschungszentrum Dresden-Rossendorf; Christian Marquardt, Volker Neck, Karlsruhe Research Center, Institut für Nukleare Entsorgung; Anke Richter, Forschungszentrum Dresden-Rossendorf, Institute of Radiochemistry; Wolfgang Voigt, TU Bergakademie Freiberg; Georgia Wollmann, TU Bergakademie Freiberg (Germany); Stefan Wilhelm, AF-Colenco Ltd. (Switzerland) 2:25 Short and Long Term Behavior of Bentonite under the Boundary Conditions of a Repository for High Level Radioactive Wastes - 9151

> *Horst-Jürgen Herbert*, Gesellschaft für Anlagen-und Reaktorsicherheit; Jörn Kasbohm, University of Greifswald (Germany)

2:50 Laboratory Characterization of Chemico-Osmotic, Hydraulic and Diffusion Properties of Rocks: Apparatus Development - 9134 Mikio Takoda, Tsuvoshi Hiratsuka, Kazumas

*Mikio Takeda*, Tsuyoshi Hiratsuka, Kazumasa Ito, National Institute of Advanced Industrial Science and Technology (AIST) (Japan)

3:15 pm –	Session 75	Room
5:00 pm		221C

Project Management Improvements - Planning through Completion - Scope, Cost, Schedule Control

Co-Chairs: Christopher Timm, PECOS Management Services, Inc; Sherry Keeney, PECOS Management Services, Inc. (USA) Sponsor: Christopher Timm Organizers: Sherry Keeney, Peter Offringa Paper Reviewer: Peter Offringa

#### 3:20 Technical Risk Rating of US DOE Environmental Management Projects -9153

Steven Schneider, US DOE; Ronald R. Fayfich, **Michael Cercy**, Savannah River Nuclear Solutions (USA)

- **3:45 Implementing Performance Trending at Two US DOE Sites** - 9330 **Steve Prevette**, Fluor Hanford; Anthony Umek, Fluor Government Group; Chuck Hayes, Savannah River Nuclear Solutions (USA)
- 4:10 Multi-Site Project Management: A Program for Reducing the Cost of Technology Deployment at US DOE Sites - 9480 *Neil Davis, Edward Selden, David Little, Mary Coleman, John Bennett, WSRC (USA)*

#### 4:35 Providing an Integrated Waste Management Strategy and Operation Focused on Project End States at the Hanford Site - 9102 Ty Blackford, CH2M HILL Plateau Remediation Company (USA)

1:30 pm – Session 76 Room	1:30 pm – Session 77 Room
5:00 pm 221B	5:00 pm 221A
Technical Communication: Critical to Nuclear Renaissance	Meeting the Challenges of Safe, Secure and Economical Radioactive Materials Transportation
Co-Chairs: Elizabeth Bowers, US DOE; Jeannette Hyatt, Savannah River Nuclear Solutions (USA) Sponsor and Paper Reviewer: Elizabeth Bowers Organizers: W.T. (Sonny) Goldston Paper Reviewer: Elizabeth Bowers <b>1:35 What's Inside the Black Box? - Explaining</b> <b>Performance Assessment to Stakeholders</b>	Co-Chairs: Ken Niles, Oregon Department of Energy; Lisa Janairo, The Council of State Governments, Midwestern Office (USA) Sponsor: Robin Sweeney Organizer: Richard Yoshimura Paper Reviewer: Larry Harmon
- 9173 <b>Roger Seitz</b> , Elmer Wilhite, SRNL; Martin Letourneau, US DOE (USA)	1:35 Radioactive Waste Transport: Managing Risk Perception and Communication - 92 Christopher Murray, University of Oklahon (USA)
2:00 The Importance of Strategic Planning and Critical Decision Making in the Initial Stages of the Plateau Remediation New Contract Start-Up - 9104 Moses Jaraysi, Amy Lientz, CH2M HILL	2:00 AREVA Logistics Business Unit Transportation Risk Management Initiativ - 9523 Catherine Anne, AREVA NC - Transnuclea
Plateau Remediation Company (USA) 2:25 Public Acceptance of Low-Level Waste Disposal Critical to the Nuclear Renaissance - 9009	Inc (USA); Laurent Blachet, TN Internationa (France) 2:25 Section 180(c) of the Nuclear Waste Polic Act: Policy Implementation With State Ar Tribal Involvement - 9386
<ul> <li>W.T. (Sonny) Goldston, Savannah River</li></ul>	Elizabeth Helvey, JK Research Associates,
Nuclear Solutions (USA) <li>2:50 Establishing Final End State for a Retired</li>	Inc.; Lee Finewood, <b>Frank Moussa</b> , Julie
Nuclear Weapons Production Reactor: A	Offner, US DOE (USA)
Collaboration Between Stakeholders,	2:50 State Shipment Fees as a Supplement to
Regulators, and the Federal Government -	Federal Financial Assistance under
9141	Section 180(c) of the Nuclear Waste Polic
Mary Flora, Area Completion Projects, SRS;	Act - 9398
Helen Belencan US DOE-Savannah River;	Lisa Janairo, The Council of State
Christopher Bergren, Savannah River Nuclear	Governments, Midwestern Office (USA)
Solutions (USA)	3:20 The WIPP Transportation Program at Ter
3:20 Regulatory Support of Treatment of the	Years, Making the Case for Above-
Savannah River Site PUREX Waste - 9369	Regulatory Procedures - 9396
Luke Reid, Savannah River Nuclear Solutions	Ken Niles, Oregon Department of Energy;
(USA)	Rick Moore, Pronghorn Engineering (USA)
3:45 Improving the Accuracy of News Coverage	3:45 Continuity Planning: Ensuring Knowledg
of Nuclear Power, Waste and Management	Transfer and Consistency During
Issues - 9258	Workforce/Stakeholder Transition - 9323
Michael Greenberg, Karen Lowrie, Rutgers	Julie Offner, US DOE; Lisa Janairo, The
University - CRESP (USA)	Council of State Governments, Midwestern
4:10 Core Team Recommendation Leads to Identification of Recommended Preferred Alternative for Project Completion at the West Valley Demonstration Project - 9262 Moira Maloney, US DOE; John Chamberlain, Laurene Rowell, West Valley Nuclear Services Co. (USA)	Office; John Smegal, Legin Group, Inc. (US

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### 1:30 pm – Poster Session 78 Room 5:00 pm 2nd Floor

### Topic A: WMS Non-Paper Poster Session for Emerging Issues and Late Abstracts

Co-Chairs: Gary Benda, Studsvik, Inc.; Linda Lehman, CH2M HILL Plateau Remediation Company (USA) Sponsor and Organizer: Gary Benda

- A.1 Cost Savings in Applying Optimum Packaging Knowledge and the Bulk Survey for Release (BSFR) Disposal Alternative for Honeywell's Metropolis, IL Uranium Conversion Facility - 9524 Mark Bagwell, Honeywell; Daniel Jordan, Enercon (USA)
- A.2 Safe and Compliant Approach to Decontamination and Decommissioning of the Plutonium Finishing Plant at the Hanford Site - 9403 Steve Dahlgren, CH2M HILL Plateau Remediation Company (USA)
- A.3 Groundwater Modeling to Reduce Technical Risk During Decontamination and Decommissioning Activities at the Oak Ridge National Laboratory - 9083 David Watson, Paula Kirk, Oak Ridge National Laboratory; Marcella Mueller, University of Tennessee (USA)
- A.4 Groundwater Modeling in the Karst Environment of East Tennessee Technology Park (ETTP) - 9062 Alauddin Khan, Allen Motley, Science Applications International Corporation (USA); Richard Ketelle, Bechtel Jacobs Company, LLC (USA)
- A.5 Overview of the Conference of Radiation Control Program Directors, Inc. (CRCPD) Unwanted Radioactive Materials Program and the New Source Collection and Threat Reduction Program (SCATR) - 9170 Joseph Klinger, Illinois Emergency Management Agency (USA)
- A.6 Potential for Post-Closure Radionuclide Redistribution Due to Biotic Intrusion: Aboveground Biomass, Litter Production Rates, and the Distribution of Root Mass with Depth at Material Disposal Area G, Los Alamos National Laboratory - 9210

*Candace Christensen*, Terry Jennings, Christopher Jaros, David Wykoff, North Wind, Inc.; Sean French, Los Alamos National Laboratory; Rob Shuman, URS Corporation (USA)

A.7 Application of Membrane Technology to Minimize Liquid Waste from Reprocessing Plant - 9130

> **Yasutomi Morimoto**, Yasuhiro Suzuki, Mamoru Numata, Takashi Kato, JGC Corporation (Japan); Sai Bhavaraju, Shekar Balagopal, Ceramatec Inc. (USA)

- A.8 Radiological Source Tracking and Monitoring (RadSTraM) Phase III - 9239 Deborah Kopsick, US EPA (USA); Randy Walker, UT-Battelle/ORNL (USA)
- A.9 Hot Cell Laser Ablation-ICP-AES Method for Monitoring Vitrification of Hanford Radioactive Waste - 9533 *Aruna Arakali, URS-Washington Division* (USA)
- A.10 Developing a Web-Based Inventory Database For Greater-than-Class C Low Level Radioactive Waste - 9314 Mary Picel, Bruce Biwer, John Peterson, Tim Klett, ANL; George Dixon, Christine Gelles, US DOE (USA)
- A.11 Spectroscopic Methods for Characterization of Irradiated and Spent Fuel of Research Nuclear Reactors. - 9528 Victor Potapov, Anatoly Volkovich, Yury Simirsky, Oleg Ivanov, Russian Research Center Kurchatov Institute (Russia)
- A.12 CEA's Contaminated Lead Recycling Routes - 9532 Frederic Hornung, Marc Butez, French Atomic Energy Commission (France)
- A.13 Concept to Manage and Evaluate Measured Data of Nuclear Facilities Especially Useful in the Dismantling Process - 9535 Swen Henning, Safetec Entsorgungs- und Sicherheitstechnik GmbH (Germany)
- A.14 Management of Toxic and Dangerous Waste Produced in the Distmantlement of Russian Submarines - 9544 Tatiana Makarchuk, JSC "Terna SB" (Russia); Robert Dyer, Eleonora Barnes, US EPA (USA)

### MARCH 5, 2009 THURSDAY AM

8:30 am –	Session 79	Room
12:00 pm		224A

## Panel: Federal Government Contract "Capture" Workshop

Instructor: Vik Mani, Mani Strategic Solutions, LLC (USA) Sponsor and Organizer: Vik Mani

This workshop will focus 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.

Over the years, the WM Symposia conference has become the hotbed of activities of targeting, partnering, pursuing, recruiting, planning and strategizing to capture federal government prime contracts and subcontracts. Many teaming courtships between companies start at the WM Symposia and blossom into long-term relationships. The knowledge gained and the intelligence gathered at the WM Symposia have helped create billions of dollars in backlog to private companies, and led to very successful long-term contractors for the government and corporations alike.

This session will provide professionals with a better understanding of the tactical and strategic management processes involved in the overall effort of "Capture". WM2009 Exhibitors are encouraged to attend this session (A Technical Session badge is not required).

Panelists: John Bradburne, Principal, Bradburne Consulting, LLC; Dennis Ferrigno, Management Consultant, CAF & Associates, LLC; Keith Klein, Longenecker & Associates, Inc.; John Longenecker, President, Longenecker & Associates; Paul Miskimin, Managing Director, Winning Ways International; Robert Warther, Vice President and Project Manager, Parsons; and Antonio Franco, Attorney and Partner, PilieroMazza PLLC (USA)

8:30 am –	Session 80	Room
5:00 pm		222C

#### Roundtable: Waste Management (WM) Energy Facilities Contractor Operating Group (EFCOG)

Co-Chairs: W.T. (Sonny) Goldston, Savannah River Nuclear Solutions; William Morrison, EnergySolutions (USA) Sponsor: W.T. (Sonny) Goldston Organizer and Roundtable Reporter: Nancy Rothermich

The EFCOG will meet to discuss a variety of issues of importance to US DOE waste management operations. The purpose of the WM EFCOG roundtable 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 US DOE or commercial facilities. The WM Task Group will focus 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.

8:30 am –	Session 81	Room
5:00 pm		222B

Roundtable: Energy Facilities Contractor Operating Group (EFCOG) - D & D

Co-Chairs: Andrew Szilagyi, US DOE; Lance Mezga, ORNL (USA) Sponsor and Roundtable Reporter: Andrew Szilagyi Organizers: Andrew Szilagyi, Lance Mezga

The D&D EFCOG will meet to discuss a variety of issues of importance to US DOE D&D Projects. The purpose of the D&D EFCOG is to seek out and promote the best management and operating practices, cost effective technologies and D&D options for all US DOE facilities. The D&D Task Group will focus on complex-wide integration and technology transfer while supporting cost effective and efficient 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.

### **POSTER SESSIONS**

The WM2009 Poster Sessions will be held at the PCC. The 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. Posters will be displayed on the Second Floor of the PCC near the meeting rooms.

#### POSTER PRESENTER ATTENDANCE

Session	#	Poster Period	Attendees First Period	Attendees Second Period	Poster Setup	Poster Removal
	MONDAY, MARCH 2, 2009					
Afternoon	22	1:30 pm - 5:00 pm	1:30 pm – 2:00 pm	4:30 pm – 5:00 pm	1:00 pm – 1:30 pm	5:00 pm – 5:30 pm
			TUESDAY	(, MARCH 3, 2009		
Morning	36	8:30 am –12:00 pm	8:30 am – 9:00 am	11:30 am – 12:00 pm	8:00 am – 8:30 am	12:00 pm – 12:30 pm
Afternoon	50	1:30 pm – 5:00 pm	1:30 pm -2:00 pm	4:30 pm – 5:00 pm	1:00 pm – 1:30 pm	5:00 pm – 5:30 pm
			WEDNESD	AY, MARCH 4, 2009		
Morning	67	8:30 am - 12:00 pm	8:30 am – 9:00 am	11:30 am – 12:00 pm	8:00 am – 8:30 am	12:00 pm – 12:30 pm
Afternoon	78	1:30 pm – 5:00 pm	1:30 pm – 2:00 pm	4:30 pm – 5:00 pm	1:00 pm – 1:30 pm	5:00 pm – 5:30 pm

### NOTES

## **POSTER SESSIONS**

## **STUDENT POSTERS COMPETITION – SESSION 22E**

## THE NEXT GENERATION - INDUSTRY LEADERS OF TOMORROW

Be sure to visit the Student Posters display on Monday afternoon 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 WM2009 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

<u>E.1 - Removal of Radionuclides and Fission Products from Spent Nuclear Fuel using Sulphate</u> <u>Reducing Bacteria: Feasibility Study</u> **Nonhlanhla Ngwenya**, Evans Chirwa, University of Pretoria (Republic of South Africa)

<u>E.2 - Testing of Puncture-Resistant Material for Protection of Beta Scintillation Detectors</u> **Ramon A. Colon Mendoza**, (DOE Fellow) Florida International University/Applied Research Center (USA)

E.3 - Using New Porous Nano Composites for Photocatalytic Water Decontamination Maryam Zarei, University of Texas at El Paso (USA)

<u>E.4 - Mercury Removal from East Fork Poplar Creek Using Chemical Reduction and Volatilization</u> Jose Vasquez, (DOE Fellow), Florida International University/Applied Research Center (USA)

<u>E.5 - Waste Treatment Plant (WTP), Automated Operation Control via PLC for PEP</u> **Serkan Akar**,(DOE Fellow), Florida International University/Applied Research Center (USA)

<u>E.6 - The Effect of Ultrasound in Dislodging Radioactive Waste from DOE Pipelines</u> **Denisse Aranda**, (DOE Fellow), Florida International University/Applied Research Center (USA)

<u>E.7 - Selective Separation of Cs by Ammonium Molybdophosphate-Loaded Silica Gels</u> **Yusuke Endo**, Yan Wu, Hitoshi Mimura, Yuichi Niibori, Tohoku University; Isao Yamagishi, Shinichi Koyama, Masaki Ozawa, JAEA (Japan)

E.8 - Investigation of Effects of pH and Temperature on the Carbonate Promoted Dissolution of Meta-Autunite **Ravi Gudavalli**, Florida Intl University/Applied Research Center (USA)

E.9 - Coal-Bed Methane Produced Water Treatment Amy Pahmer, (DOE Fellow), Florida International University/Applied Research Center (USA)

E.10 - Treatment of Electric Arc Furnace Dust (EAFD) by Cement Solidification/Stabilisation (S/S) Using Sustainable Alternative Binders Beste Cubukcuoglu, University of Surrey (UK)

<u>E.11 - SHS Production of Nitride Nuclear Fuels Using Surrogate Materials</u> **Collin Donohoue**, Colorado School of Mines (USA)

E.12 - Caustic Dissolution of Chromium in Underground Storage Tanks at Hanford Site Alexander Henao, (DOE Fellow), Florida International University/Applied Research Center (USA)

E.13 - Terrestrial Radioactivity and Dose Calculation to the Public: The Case of the US Merlin Ngachin, (DOE Fellow), Florida International University/Applied Research Center (USA)

E.14 - Themodynamic Equilibrium Modeling of Mercury Speciation in the Environment Amaury Betancourt, (DOE Fellow) Florida International University/Applied Research Center (USA)

## WM2009 Common Acronyms List

\* Country acronyms are US unless noted otherwise

AEA Atomic Energy Agency or the 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 **ANS** American Nuclear Society **ARM** Accelerator-Produced Radioactive Material **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 CPP** Crosscutting Policies & Programs **D&D** Decontamination & Decommissioning **DAW** Dry Activated Waste **DCS** Dry Container Storage **DNFSB** Defense Nuclear Facility Safety Board **DOD** United Sates Department of Defense DOE United States Department of Energy DOT United States Department of Transportation DWPF Defense Waste Processing Facility EC European Commission **EDF** Electricite' de France (France) **EFCOG** Energy Facilities Contractor **Operating Group EIS** Environmental Impact Statement **EM** Environmental Management **ENEA** National Agency for New Technologies, Energy and Environment (Italy) **EPA** United States 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 ILW Intermediate Level Radioactive Waste **INL** Idaho National Laboratory **IPAC** International Program Advisory Committee **IPSN** Institute de Protection et de Surete (France) **JAERI** Japan Atomic Energy Research Institute (Japan) **KAERI** Korea Atomic Energy Research Institute (Korea) LAW Low-Activity Radioactive Waste LANL Los Alamos National Laboratory LBNL Lawrence Berkeley National Laboratory LEU Low Enriched Uranium LL/ILW Low- and Intermediate-Level Radioactive Waste LLNL Lawrence Livermore National Laboratory LLRW/LLW Low Level Radioactive Waste LSA Low Specific Radioactive Activity LWR Light-Water Reactor **M&I** Management & Integration **M&O** Management & Operation MRS Monitored Retrievable Storage MW Mixed Hazardous and Radioactive Wastes NAGRA National Cooperative for the Storage 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 **NNSA** National Nuclear Security Administration 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 **PAC** Program Advisory Committee PCC Phoenix Convention Center **PNNL** Pacific Northwest National Laboratorv **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 SRNL Savannah River National Laboratory **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 United States Army Corps of Engineers **UNF** Used Nuclear Fuel WAC Waste Acceptance Criteria **WD** Waste Determination **WERC** Waste-management Education & Research Consortium WIPP Waste Isolation Pilot Plant WIR Waste Incidental to Reprocessing WM Waste Management **WMS** Waste Management Symposia WNA World Nuclear Association WRAP Waste Receiving and Processing WS Wet Storage WVNS West Valley Nuclear Services YM Yucca Mountain

Session in Bold followed by the Paper Number

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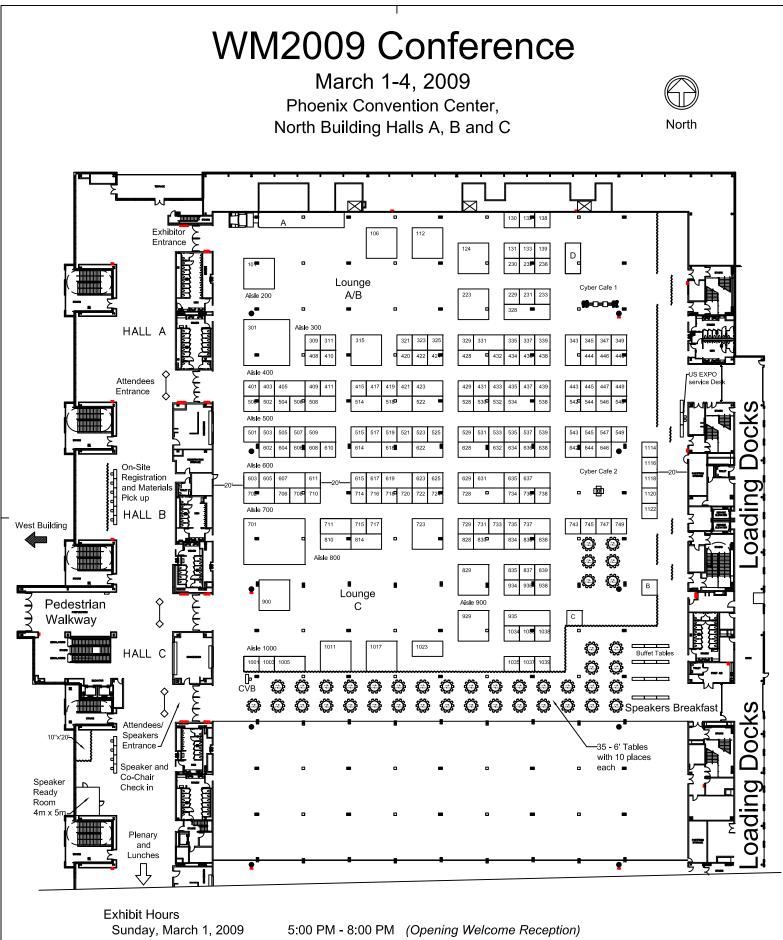
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Contact: Tabatha Hammond Booth #: 434 New Exhibitor

320 N. Cedar Bluff Road Suite 200 Knoxville, TN 37923-4524 USA P: 865-251-5062 F: 865-769-0946 Email: thammond@alliantcorp.com Website: www.alliantcorp.com

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Contact: Brett Campbell Booth #: 315

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Contact: Karen Norheim Booth #: 337

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Contact: Bill Schaab Booth #: 534-536

PO Box 553 Grand Island, NY 14072 USA P: 866-699-5515 F: 716-773-5515 Email: bschaab@americandnd.com Website: www.americandnd.com

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#### American Nuclear Society

Contact: Scott Braland Booth #: 539

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#### American Radiation Services, Inc.

Contact: Elvin Chavez Booth #: 309

133 State Road 4 White Rock/Los Alamos, NM 87544 USA P: 225-381-2991 F: 225-381-2996 Email: vmulligan@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.

#### **ANTECH Corporation**

Contact: Robin Mckay Booth #: 606

9050 Marshall Ct. Westminster, CO 80031 USA P: 303-430-8184 F: 303-430-8215 Email: robin@antechcorp.com Website: www.antech-inc.com

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## Applied Research Center at Florida International University

Contact: Leonel E. Lagos Booth #: 525 New Exhibitor

10555 W. Flager Street, Suite 2100 Miami, FL 33174 USA P: 305-348-1810 F: 305-348-1852 Email: lagosl@fiu.edu Website: www.fiu.edu

Florida International University's Applied Research Center is a university based research center located in Miami, Florida. Since 1995, ARC has supported DOE's environmental restoration mission by conducting applied research in key DOE-EM's technical areas such as Decontamination & Decommissioning, Waste Processing, and Soil & Groundwater. In 2007, DOE-EM & ARC established the DOE-FIU Science & Technology Workforce Development Program; this unique program is designed to develop a "pipeline" of minority scientists & engineers students (called DOE Fellows) specifically trained and mentor in DOE-EM's technical needs.



AREVA Contact: Tammy Pattison Booth #: 301 Silver Level Sponsor

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Contact: Tony Marlow Booth #: 223

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## Cabrera Services, Inc.

Contact: Shannan Ryll Booth #: 830-832 Gold Level Sponsor

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Contact: Dave Kerpius Booth #: 321

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## Cavanagh Services Group, Inc.

Contact: Amanda Hansen Booth #: 717

180 S. 300 West, Suite 290 Salt Lake City, UT 84101 USA P: 801-532-2272 F: 801-532-0155 Email: ahansen@cav-services.com Website: www.cav-services.com

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## **CBI Polymers**

Contact: Michael Chun Booth #: 632

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CDM is a consulting, engineering, construction, and operations firm delivering exceptional service to public and private clients worldwide. CDM services to DOE facilities include support for environmental restoration, waste management, regulatory compliance, decontamination and demolition of closed facilities, and design/build completion of new or rehabilitated facilities.

#### **Central Research Laboratories**

Contact: Miles Close Booth #: 629

3965 Pepin Avenue Red Wing, MN 55066 USA P: 651-385-2143 F: 651-385-2109 Email: m.close@centres.com Website: www.centres.com

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Contact: William Long Booth #: 423-425

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Contact: Ashley Rath Booth #: 615

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#### Chesapeake Nuclear Services, Inc.

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## Columbia Energy & Environmental Svcs, Inc.

Contact: Brian Brendel Booth #: 738 New Exhibitor

1806 Terminal Drive, MS B8-12 Richland, WA 99354 USA P: 509-946-7111 F: 509-946-9365 Email: bbrendel@columbia-energy.com Website: www.columbia-energy.com

Columbia Energy & Environmental Services, inc. is a woman-owned, full-service engineering company with an approved NQA-1 program based in Richland, Washington offering: engineering & design; drafting; environmental & regulatory consulting; technology development & deployment; waste process & groundwater modeling; and IT consulting. Products include a transportable evaporator, LLW solidification process, laboratory management system, and hose-in-hose solution.

## **Commercial Vehicle Safety Alliance**

Contact: Duane Sammons Booth #: 743

1101 - 17th Street NW, Suite 803 Washington, DC 20036 USA P: 208-860-1719 F: 304-292-1602 Email: dsammons484@aol.com Website: www.cvsa.org

The Commercial Vehicle Safety Alliance, a not for profit organization, promotes commercial motor vehicle safety and security and provides standardized-certified training, for inspectors and vehicle drivers of Highway Route Controlled radioactive material shipments and general freight on our nations highways.

## Commodore Advanced Sciences, Inc.

Contact: Walt Foutz Booth #: 504

9769 W. 119th Drive, Suite 31 Broomfield, CO 80021 USA P: 303-421-1511 F: 303-463-4833 Email: waltfoutz@commodore.com Website: www.commodore.com

Commodore Advanced Sciences is a Small Business established in New Mexico in 1977, with offices in Richland, Oak Ridge, Denver, and Los Alamos. Commodore specializes in environmental monitoring and sampling services, compliance sampling, biological monitoring, habitat assessment, benthic laboratory services, and waste treatment services, especially PCB waste and LLMW.

## **Container Products Corporation**

Contact: Dwight Campbell Booth #: 734

112 N. College Road Wilmington, NC 28405 USA P: 910-392-6100 F: 910-392-6778 Email: sales@c-p-c.com Website: www.c-p-c.com

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#### Container Technologies Industries, LLC Contact: Ruthie Mullett

Booth #: 403

163 Helenwood Detour Road Suite 100 Helenwood, TN 37755 USA P: 423-569-2800 F: 423-569-2806 Email: rmullett@containertechnologies.com Website: www.containertechnologies.com

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Contact: Jeff Sims Booth #: 124

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## Doerfer Companies' Wheelift Systems

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DW James Consulting, LLC brings together internationally recognized expertise in all areas of radioactive waste management. Our radioactive waste expertise includes systems design, operations, program development and management, radwaste characterization and shipping software, activated component characterization, transportation planning, hazardous materials security and shipping.

## **DZ** Atlantic

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**E.H. Wachs Company** Contact: Sherry Gilmore Booth #: 501

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## Eastern Technologies, Inc.

Contact: Benji McWaters Booth #: 718

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Contact: Veronica Ybarra Booth #: 628-630

7021 Pan American Fwy NE Albuquerque, NM 87109 USA P: 505-923-2575 F: 505-262-2698 Email: vybarra@eberlineservices.com Website: www.eberlineservices.com

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Contact: Dan Watson Booth #: 625

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Contact: Danny Cain Booth #: 131

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Contact: Keith Mahosky Booth #: 522-524

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#### **Energy Solutions**

Contact: Mark Walker Booth #: 701 Gold Level Sponsor

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## **Environmental Dimensions Inc. (Edi)**

Contact: Valentina Smith Booth #: 828

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#### **Environmental Rail Solutions, Inc.**

Contact: David Ardito Booth #: 836

621 Shrewsbury Avenue, Suite 152 Shrewsbury, NJ 7702 USA P: 732-212-8170 F: 732-212-8141 Email: dardito@envrail.com Website: www.envrail.com

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## Fluor Government Group

Contact: Jody Redeker Booth #: 929

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Fluor Corporation has a 60 year legacy as a trusted contractor of the U.S. Government including the Department of Energy, as well as providing engineering, procurement, construction, operations, maintenance and project management globally. Fluor's expertise includes nuclear operations, waste management, environmental remediation, and D&D services. As a leading provider to DOE, Fluor currently manages operations at the Savannah River Site and is a part of the CHPRC team for plateau remediation at the Hanford site. Recently, the National Safety Council selected Fluor Hanford as the winner of the 2008 International R.W. Campbell Award for their integration of environmental, safety and health management into business operations as a cornerstone of their corporate success.

#### Fontijne Grotnes B.V.

Contact: Yanto Schraa Booth #: 335

Industrieweg 21, 3130 AC PO 149 Vlaardingen, Netherlands P: 31-1043-48233 F: 31-1043-52655 Email: info@fontijnegrotnes.com Website: www.fontijnegrotnes.com

Fontijne Grotnes designed and manufactured in 1978 the world's first Supercompactor for the volume reduction of Solid Radioactive Waste. Our proven designs, reliable compaction technology according international standards and well structured project organisation gives us a leading position in the field of compaction of Solid Low and Intermediate Level Waste.

## Frham Safety Products, Inc.

Contact: John McGarity III Booth #: 722

PO Box 36098, 171 Grayson Road Rock Hill, SC 29732 USA P: 803-366-5131 F: 803-366-2005 Email: trip@frhamsafety.com Website: www.frhamsafety.com

Frham Safety Products, Inc. is a leading supplier of both Nuclear and Industrial safety equipment throughout North America. Serving both commercial and governmental facilities, Frham offers innovative radiation and contamination protection, health physics supplies, rad-waste reduction items, and custom manufacturing, complemented by Frham's ability to provide a full line of Industrial safety equipment.

#### **Garlock Helicoflex**

Contact: Chad Thomas Booth #: 505

404 Listowe Drive Folsom, CA 95630 USA P: 916-984-7631 Email: chad.thomas@garlock.com Website: www.helicoflex.com

Garlock Helicoflexâ designs and manufactures high performance metal seals for the most demanding nuclear waste and reactor pressure vessel applications. Our products include Helicoflexâ spring energized seals, O-FLEX metal o-rings, and QDSâ clamp & seal systems. Other applications include cask closures, fill ports and drain ports to name a few.

#### **GEL Laboratories, LLC**

Contact: Bob Seyer Booth #: 706

9111 Cross Park Drive, Suite D200 Knoxville, TN 37934 USA P: 865-470-4090 F: 865-470-4091 Email: bobseyer@mindspring.com Website: www.gel.com

Founded in 1981, our client base includes some of the largest industrial manufacturers in the Southeast, eight nuclear utilities, 15 Department of Energy sites, thirteen Army Corps of Engineer (ACOE) Districts and the Southern Division Navy; GEL provides these clients with customized environmental chemistry services including environmental monitoring, RI/FS, RCRA investigation, NPDES analysis, hazardous and mixed waste characterization, bioassay, decommissioning and remediation closure analysis. Additionally, we perform full Part 61 and Envirocare characterization services on samples with contact doses rates up to 600 mR/hr.

## **General Plastics Mfg. Co**

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4910 Burlington Way Tacoma, WA 98409 USA P: 253-473-5000 F: 253-473-5104 Email: glenn\_strom@generalplastics.com Website: www.generalplastics.com

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## GETINGE La Calhene, Inc.

Contact: Scott Lavalla Booth #: 509-511

1325 Field Avenue South Rush City, MN 55069 USA P: 320-358-0570 F: 320-358-3549 Email: scotl@lacalhene.com Website: www.lacalhene.com

GETINGE La Calhene, the leader in Contained Transfer Technology will showcase the 55 gallon DPTE Drum Transfer System along with other transfer and manipulation technologies. If you have a TRU waste packaging or transfer requirement, come see la Calhene; we have the safest, most cost effective solution.

#### Golder Associates, Inc.

Contact: Kristi White Booth #: 714

44 Union Blvd., Suite 300 Lakewood, CO 80228 USA P: 303-980-0540 x 20641 F: 303-985-2080 Email: kwhite@golder.com Website: www.golder.com

Golder Associates Inc. is an employee-owned, global group of companies specializing in ground engineering, water treatment and environmental services. From 150 offices worldwide, our 5,500 employees work directly with clients and partners to help manage their environmental and engineering activities in a technically sound, economically viable and socially responsible manner.

## GoldSim Technology Group, LLC

Contact: Heidi Barnett Booth #: 708

300 NE Gilman Blvd., Suite 100 Issaquah, WA 98027 USA P: 425-295-6985 F: 425-642-8073 Email: hbarnett@goldsim.com Website: www.goldsim.com

GoldSim is the premier tool for carrying out probabilistic performance assessments of proposed and existing radioactive waste management sites. It is being used to develop the long-term safety analysis for the US Department of Energy's proposed high-level radioactive waste disposal facility at Yucca Mountain. It is also being used by similar organizations to support radioactive waste management programs in many other countries including the UK, Japan, Spain, France, Germany, Hungary, Taiwan, China, the Czech Republic and the Slovak Republic.

## **Greenfield Logistics, LLC**

Contact: Shane Johanson Booth #: 736

9130 S. State Street, Suite 223 Sandy, UT 84071 USA P: 801-676-1575 F: 801-676-1579 Email: sjohanson@greenfieldlogistics.com Website: www.greenfieldlogistics.com

Greenfield Logistics is a transportation logistics company dedicated to providing the highest level of service for the waste industry. With our own fleet of railcars and intermodals, we can move customer's products safely and efficiently and at a very competitive price.

## Hot Cell Services Corporation

Contact: Zbiegniew Tomalik Booth #: 603

22626 85th PI. South Kent, WA 98031 USA P: 253-854-4945 F: 253-854-4947 Email: ztomalik@hotcell.com Website: www.hotcell.com

Hot Cell Services is the worldwide leader in safe viewing solutions and maintenance for the Nuclear and Medical Industries. We manufacture Radiation Shielding Windows, Glove Box Windows, Glass Slabs and Bricks, Radiation Gaskets and supplies. We support our products with Engineering, Consulting, Extraction, Installation, Maintenance, Refurbishment, Inspection and Diagnosis services.

#### hydroGEOPHYSICS, Inc.

Contact: Ronald Bell Booth #: 936

2303 N. Forbes Blvd Tucson, AZ 85745 USA P: 520-647-3315 F: 520-647-3428 Email: rbell@hgiworld.com Website: www.hgiworld.com

hydroGEOPHYSICS, Inc. is a dynamic, innovative geophysical consulting and services firm specializing in High Resolution Resistivity (HRR<sup>™</sup>) subsurface imaging for characterizing contaminant plumes, moisture content, and fluid flow pathways. In addition, HGI's relevant experience includes detection of leaks in underground storage tanks and geosynthetic liners, location and delineation of buried objects and infrastructure, and groundwater resource exploration.

#### Hukari Technical Services, Inc.

Contact: Lisa Beadle Booth #: 132 New Exhibitor

4251 Kipling St.,Suite 580 Wheat Ridge, CO 80033 USA P: 303-384-9079 F: 303-277-1458 Email: LisaB@hukari.com Website: www.hukari.com

Hukari Techincal Services, Inc. (HUKARI) is a Techincal Consulting and Engineering compnay providing services to Government and Commerical clients. HUKARI specializes in comprehensive engineering and techincal services associated ith nuclear power generation; safety analysis; licensing; hazardous material processing; envirnomental/waste management; decommissiong and deactiviation (D&D); safety-related systems; and compliance.

## I.C.E. Service Group, Inc.

Contact: Dennis D. Morgan II Booth #: 1023 New Exhibitor

192 Ohio River Blvd., Suite 100 Ambridge, PA 15003-1214 USA P: 724-266-7580 F: 724-266-7583 Email: dmorgan@iceservicegroup.com Website: www.iceservicegroup.com

ICE provides economical and safe packaging, transportation & logistical support and management of hazardous and specialty materials, including, RCRA, TSCA, LLRW and Non-Hazardous waste for both commercial and government clients. We utilize a multi-modal approach combining truck, rail and marine conveyances. Our seasoned staff of professionals has managed over 10,000,000 tons of hazardous and specialty materials. Our Industrial Service Group provides site services such as waste profile completion, manifesting, industrial cleaning (power-washing, sand blasting, chemical cleaning) & painting of structures, tanks and equipment.

#### **International Climbing Machines**

Contact: Sam Maggio Booth: Specialty Vehicle B

607 El Mira Rd. Ithica, NY 14850 USA P: 607-288-4001 Email: sam@icm.cc Website: www.icm.cc

ICM provides remote controlled machines that climb vertical and inverted surfaces. They're held to surfaces by vacuum so they climb ferrous / nonferrous metals, concrete, composites, etc. ICM machines can carry inspection tools, abraders, cutting tools, coating application heads, etc. ICM machines are robust and easily deployable.

## IAEA Careers - Argonne National Lab

Contact: Christine O'Brien Booth #: 530

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The International Atomic Energy Agency (IAEA) in Vienna, Austria is the world's center for cooperation in the nuclear field committed to promoting safe, secure and peaceful uses of nuclear technology. IAEA offers opportunities to engage current, meaningful issues of global peace, security and development while working in the multicultural workplace.

## IAP Worldwide Services, Inc.

Contact: Arlene Mellinger Booth: 437 New Exhibitor

7315 N. Atlantic Ave Cape Canaveral, FL USA P: 321-784-7100 F: 321-784-7152 Email: <u>Arlene.j.mellinger@iapws.com</u> Website: www.iapws.com

IAP Worldwide Services specializes in Facilities Management and Base Operations Supports, Professional and Technical Services, and Global Operations and Logistics. We are the experts in operating and maintaining military installations, civilian facilities and government research laboratories, offering an unlimited range of facilities management resources with proven, real-time work tracking systems.

#### IBC Advanced Technologies, Inc.

Contact: Steven Izatt Booth #: 345

856 E. Utah Valley Drive American Fork, UT 84003 USA P: 801-763-8400 F: 801-763-8491 Email: sizatt@ibcmrt.com Website: www.ibcmrt.com

IBC Advanced Technologies Inc. is a world leading fine and specialty chemicals company that develops and commercializes Molecular Recognition Technology (MRT) products and processes. Molecular recognition is a process by which one chemical species shows a distinct preference for another. IBC provides innovative molecular recognition products to the industrial process, environmental, analytical, and life sciences industries.

#### **ICx Radiation**

Contact: Melissa Turner Booth #: 130

100 Midland Road Oak Ridge, TN 37830 USA P: 865-220-8700 x 105 F: 865-220-7181 Email: melissa.turner@icxt.com Website: www.icxt.com

ICx Radiation is a leading supplier of digital and analog spectroscopy systems for both laboratory and in-field use. Products offered range from handheld spectrometers the size of a PDA to radiation detection systems intergrated on crane grabs.

## **IMPACT Services, Inc.**

Contact: Sammy Jones Booth #: 602

PO Box 4849 Oak Ridge, TN 37831 USA P: 865-363-2058 F: 865-576-8699 Email: sammyjones@impactservicesinc.net Website: www.impactservicesinc.net

IMPACT Services, Inc. is direct rail served and a fully licensed radioactive material processor, specializing in Volumetric Clearance for alternative disposal; Waste Sorting, Segregation, and Consolidation to ensure meeting the disposal WAC and offering limited VR and Equipment/Component Decontamination. Ancillary services include in-situ characterization, liquids absorption processing, container refurbishment, and processor of used OREXTM PPE.

## **INTERA Incorporated**

Contact: Srikanta Mishra Booth #: 542 New Exhibitor

1812 Centre Creek Drive, Suite 300 Austin, TX 78754 USA P: 512-425-2000 F: 512-425-2099 Email: smishra@intera.com Website: www.intera.com

Established in 1974, INTERA Incorporated has over 30 years of experience providing technical services on high-profile radioactive waste management projects both in the U.S. and around the world. These services include hydrogeological testing and characterization, groundwater flow and contaminant transport modeling, risk and performance assessment, licensing support, and environmental restoration.

#### International Isotopes

Contact: Nikki Soileau Booth #: 532

4137 Commerce Circle Idaho Falls, ID 83401 USA P: 208-524-5300 F: 208-524-1411 Email: nsoileau@intisoid.com Website: www.intisoid.com

International Isotopes, Inc. along with its wholly owned subsidiary International Isotopes Transportation Services, specialize in the packaging and transportation of Category 1 and 2 Quantities of Radioactive Materials for both Government and Industry clients. Additional services include recycling of Co-60 sources and reencapsulation of Cs-137 sources.

#### International Nuclear Services

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Hinton House, Risley Warrington, Cheshire WA3 6AS United Kingdom P: 44 (0) 1925-32055 F: 44 (0) 1925-32833 Email: malcolm.touhey@innuserv.com

Website: www.internationalnuclearservices.com International Nuclear Services has over 40 years

experience of delivering used nuclear fuel services from the Sellafield site. We have the expertise to provide customers with specialist knowledge covering a range of topics associated with used fuel, waste management and the transport of nuclear materials. We have around 150 dedicated staff with offices and facilities in the UK, France, Germany and Japan.

#### Inventure Laboratories, Inc.

Contact: Thomas Shope Booth #: 538

PO Box 30457 Knoxville, TN 37930-0457 USA P: 865-531-8258 F: 865-531-9273 Email: tshope@inventurelabs.com Website: www.inventurelabs.com

Inventure Laboratories is a machinery and product development company serving industries ranging from manufacturing to government to R&D. Our mission is to deliver elegant solutions, innovative engineering, robust software, and dependable hardware at an economical price. Inventure Laboratories develops its own customized proprietary products as well as machinery and instrumentation solutions for our clients. We apply the same high standard of excellence to everything we attempt.

## **Joseph Oat Corporation**

Contact: Crystal Harrington Booth #: 638

2500 Broadway Camden, NJ 8104 USA P: 856-541-2900 x 216 F: 856-541-6062 Email: charrington@josephoat.com Website: www.josephoat.com

Joseph Oat Corporation is a world renowned designer and fabricator of pressure vessels, waste canisters, reactors, heat exchangers, and other specialty items for the nuclear power, radwaste, chem/petrochemical, and other industries. Family owned and operated since 1788, the company has gained its reputation by providing high quality equipment in a great variety of alloys for some of the most demanding and critical applications, including safety related and "N' stamped equipment.

## Kleinfelder

Contact: Michael Cline Booth #: 731 New Exhibitor

8300 Jefferson Street NE, Suite B Albuquerque, NM 87113 USA P: 505-344-7373 F: 505-344-1711 Email: mcline@kleinfelder.com Website: www.kleinfelder.com

#### Layne Christensen Company

Contact: James Bruneio Booth #: 138 New Exhibitor

11001 Etiwanda Avenue Fontana, CA 92337 USA P: 909-390-2833 F: 909-390-6097 Email: jabruneio@laynechristensen.com Website: www.laynechristensen.com

Layne Christensen Company is the largest subsurface resource development company of its kind. Founded over 100 years ago, Layne has evolved from a well drilling contractor to a world leader in groundwater resources, geotechnical construction, mineral exploration and energy development, through the application of experience, innovation, and customer service.

#### LND, Inc.

Contact: Bill Lehnert Booth #: 438

3230 Lawson Blvd Oceanside, NY 11572 USA P: 516-678-6141 F: 516-678-6704 Email: wjl@Indinc.com Website: www.Indinc.com

LND, Inc. Designers and manufacturers of nuclear radiation detectors since 1964. Detectors include: GM detectors, beryllium window x-ray proportional counters, BF3 and He3 neutron detectors, lonization chambers and flow proportional counters. LND also offers a wide range of large area sealed counters for every application.

#### Lockheed Martin

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## Longenecker & Associates, Inc.

Contact: Cheryl Mitchell Booth #: 710

1631 W. Irvine Road Phoenix, AZ 85086 USA P: 602-943-7704 F: 602-943-7705 Email: info@longenecker-associates.com Website: www.longenecker-associates.com

Longenecker & Associates, Inc. specializes in addressing management, engineering, energy, environmental and regulatory issues. L&A has a proven record of helping our clients find and resolve problems before they become significant and costly. Our expertise includes quality assurance support; project management, regulatory compliance; independent assessments; business development and strategic planning.

## MACTEC

Contact: Kristi Shober Booth #: 607-609 & Specialty Vehicle D

14062 Denver W Pkwy, Suite 300 Golden, CO 80401 USA P: 303-273-5071 F: 303-273-5000 Email: klshober@mactec.com Website: www.mactec.com

MACTEC, a \$500M nationwide firm, routinely helps clients save time and money by providing worldclass cleanup program support including regulatory compliance, engineering and design, construction and remediation, and liability transfer services. In addition, our NRC license enables us to minimize client liability for nuclear decontamination, demolition, and waste management projects.

#### Major Tool & Machine, Inc.

Contact: Joel Manship Booth #: 311

1458 E. 19th Street Indianapolis, IN 46218 USA P: 317-917-2619 F: 317-634-9420 Email: jmanship@majortool.com Website: www.majortool.com

Major Tool (MTM) is the best-in-class value provider of engineering, fabrication, machining and assembly/testing services for Nuclear markets. MTM's QA accreditations include ISO 9001-2000, NADCAP, ASME NQA-1, ASME N, NPT, NS, N3 and ASME BPV U and U2, which are applied as required to comply with our customers unique specifications. Extraordinary breadth and diversity in capabilities, processes and our people provide our customers the Major difference.

#### Mammoet

Contact: Stephen J. Kenney Booth #: 101 - B New Exhibitor

205250 FM 521 Rosharon, TX 77586 USA P: 281-369-2200 F: 281-813-8635 Email: steve.kenney@mammoet.com Website: www.mammoet.com

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#### Mega-Tech Services, LLC

Contact: John Bowen Booth #: 101-A

11118 Manor View Drive Mechanicsville, VA 23116 USA P: 804-789-1577 F: 804-789-1578 Email: jbowen@mega-techservices.biz Website: www.mega-techservices.biz

Mega-Tech offers engineering consulting, nuclear operations, spent fuel management, decommissioning and radioactive waste (high and low level) management services. The services also includes supplying standard hand-held tools, modified equipment, and engineered packages which can include all remote capabilities and adaptations of the tools. This superior cutting technology does not leave chips, filings and dross nor volatize paint or release asbestos.

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Contact: Sheena Martin Booth #: 622-624

5000 Highlands Pkwy, Suite 150 Smyrna, GA 30082 USA P: 770-432-2744 x 100 F: 770-432-9179 Email: smartin@mirion.com Website: www.synodys.com

MGP Instruments provides a full range of instrumentation and engineering services for health physics applications and radiation monitoring systems for all nuclear facilities. We are #1 in North America in electronic dosimetry. We are more than just a leader in technology. We are also recognized for our outstanding customer support.

#### MHF Logistical Solutions, Inc.

Contact: Candace Preteroti Booth #: 900

800 Cranberry Woods Drive, Suite 450 Cranberry Township, PA 16066 USA P: 724-772-9800 F: 724-772-9850 Email: candace\_preteroti@mhfls.com Website: www.mhfls.com

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## Microfiltrex - Division Porvair Filtration Group Ltd.

Contact: Chris Chadwick Booth #: 635

1 Concorde Close Segensworth Fareham Hampshire, PO15 5RT United Kingdom P: 44 (0) 1489-864330 F: 44 (0) 1489 864399 Email: chris.chadwick@porvairfiltration.com Website: www.porvairfiltration.com

Microfiltrex is the complete solution provider for filtration in the nuclear industry. Including power generation, fuel conversion off-gas clean-up, reactor containment vent/SRV protection, waste packaging and a WIPP compliant filter breather, highly active liquid, remotely handled filter systems and spent fuel drying; we have supplied tried and trusted solutions.

#### Mid-Columbia Engineering

Contact: Dena Notaras Booth #: 835

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Mid Columbia Engineering, Inc. (MCE) is a full service provider of engineering, manufacturing and technical services to the nuclear, energy, environmental, defense, and commercial industries. MCE provides technical services ranging from engineering and manufacture of precision hardware to specialty staffing support. MCE offers complete in-house design-and-build engineering, machining, fabrication, assembly, testing, and project management for projects large and small.

#### Millennium Services, Inc.

Contact: Rick Titolo Booth #: 519

222 Creekstone Ridge Woodstock, GA 30188 USA P: 770-516-7669 F: 770-516-7699 Email: rjtmsi@msn.com Website: www.millenniumservicesinc.com

Millennium Services, Inc. provides professional radiological support services to the commercial nuclear power industry, DOE, DOD, and private licensees. Our specific areas of expertise include Health Physics program development, implementation, management, and assessment; as well as the design and execution of innovative site closure strategies and radiological surveys through application of MARSSIM and advanced survey technologies.

## Mobile Characterization Services, LLC

Contact: Eric Pennala Booth #: 1035

4110 Ellison Street NE, Suite B Albuquerque, NM 87109 USA P: 505-321-0579 F: 505-345-3810 Email: epennala@canberra.com Website: www.canberra.com

MCS is a joint venture partnership of Canberra Industries, Pajarito Scientific Corporation, and V. J. Technologies specializing in mobile characterization of TRU and LL Waste using realtime radiography and non-destructive assay technologies. MCS is currently certified at multiple sites throughout the complex and has characterized over 45,000 containers for shipment to WIPP.

## **MSE Technology Applications, Inc.**

Contact: Jeff LeFever Booth #: 934

200 Technology Way, PO Box 4078 Butte, MT 59701 USA P: 406-494-7358 F: 404-494-7230 Email: jeff.lefever@mse-ta.com Website: www.mse-ta.com

MSE Technology Applications, Inc. offers 30 years experience testing, evaluating, and demonstrating technologies that address site clean-up/closure needs for federal facilities nationwide. Based in Montana with offices in Idaho, Washington, Tennessee, and West Virginia; MSE offers a 45 acre testing facility and provides engineering services to government and commercial clients.

## National Museum of Nuclear Science & History

Contact: Jim Walther Booth #: 634

1905 Mountain Road NW Albuquerque, NM 87104 USA P: 505-245-2137 x 104 F: 505-242-4537 Email: jkwalth@sandia.gov Website: www.atomicmuseum.org

The National Museum of Nuclear Science & History is America's museum resource for nuclear science. Located in Albuquerque, NM, earthwork began on the new museum facility November 2007, opening March 2009. Visit booth 634 to find out how you or your company can be recognized at this Smithsonian affiliated museum.



## **National Nuclear Laboratory**

Contact: Janet Collinson Booth #: 935-939 Gold Level Sponsor

Hinton House (H260), Risley Warrington, Cheshire United Kingdom P: 44-1925-834220 F: 44-1925-834-362 Email: janet.collinson@nnl.co.uk Website: www.nnl.co.uk

The UK's National Nuclear Laboratory (NNL) offers an unrivalled breadth of products and services to our customers across the whole nuclear industry. Covering the complete nuclear fuel cycle from fuel manufacture and power generation, to reprocessing, waste treatment, and disposal and including, new build and Homeland Security, NNL is supported by an impressive range of links with international research organisations, academia and other national laboratories.

## Navarro Research and Engineering, Inc.

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669 Emery Valley Road Oak Ridge, TN 37830 USA P: 865-220-9650 F: 865-220-9651 Email: rhea@navarro-inc.com Website: www.navarro-inc.com

Navarro is a premier contractor for the Department of Energy and the National Nuclear Security Administration providing environmental, renewable energy and energy efficiency, nuclear, information technology, and quality and safety services. Navarro, a woman-owned small disadvantaged business, has over three hundred fifty employees working in fourteen offices and twenty-three project locations nationwide.

## National Nuclear Laboratory

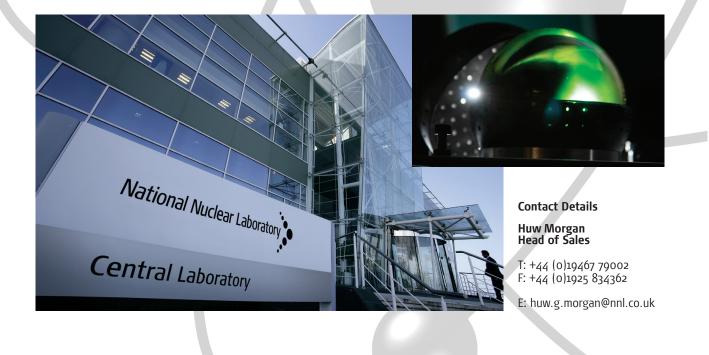
The UK National Nuclear Laboratory's core business is to provide the experts and technologies to ensure the UK nuclear industry operates safely and cost-effectively today and for the future.

Technology resides at the backbone of our business and is closely aligned with commercial acumen to add value for customers and provide a good return on investment.

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#### Netzsch Instruments, Inc.

Contact: J.B. Henderson Booth #: 839 New Exhibitor

PO Box 4469 Estes Park, CO 80517 USA P: 970-577-0840 F: 970-577-1224 Email: jack.henderson@netzsch.com Website: www.e-thermal.com

Netzsch Instruments is the leading manufacturer of thermophysical properties/thermal analysis instrumentation for the measurement of properties such as thermal conductivity, thermal diffusivity, specific heat, transition energetics, thermal expansion, mass change, solidus/liquidus temperatures and evolved gases. Our instruments can be operated in cold, fume hood, glovebox and hot cell environments.

#### North Wind, Inc.

Contact: John Bukowski Booth #: 428-430

1425 Highham Street Idaho Falls, ID 83402 USA P: 208-528-8718 F: 208-528-8714 Email: jbukowski@northwind-inc.com Website: www.northwind-inc.com

North Wind is a leading small business with core services in waste management, remediation, engineering, construction, and D&D. Our diverse capabilities allow us to self-perform nearly all aspects of any given work scope, providing customers with significant cost savings. North Wind supports a broad customer base from twenty offices nationwide.

#### **Northrup Grumman Corporation**

Contact: Gary Smith Booth #: 637-639

4101 Washington Avenue, Bldg 600, 2nd Floor Newport News, VA 23607 USA P: 757-534-4932 F: 757-688-1177 Email: joel.g.smith@ngc.com Website: www.ngc.com

Northrop Grumman has designed, manufactured and supported commercial nuclear and Naval nuclear equipment for over five decades. Four areas of the corporation are exhibiting - Northrop Grumman Technical Services is the managing partner of National Security Technologies, LLC, a joint venture responsible for managing Nevada Test Site operations, and provides support services for the safe and secure handling of hazardous materials. Northrop Grumman Newport News, the nation's sole designer, builder, and refueler of nuclear aircraft carriers and one of two companies capable of designing and building nuclear submarines, will feature its program management of nuclear materials and fuel, environmental safety and health, and radiological control. Newport News Industrial is displaying it's environmentally friendly chemical cleaning process, and its HotGuard leadfree radiation shielding products which are nonhazardous. Northrop Grumman Naval & Marine Systems offers design services, engineered solutions, reverse engineering services, digital upgrades and retrofits, and obsolescence management.

#### NSSI

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5711 Etheridge Street Houston, TX 77087 USA P: 713-641-0391 F: 713-641-6153 Email: rdgallagher@nssihouston.com Website: www.nssihouston.com

NSSI provides treatment, storage, and disposal of radioactive, hazardous, non-hazardous, and mixed radioactive/hazardous wastes. NSSI is permitted to accept all radionuclides including special nuclear material and a full spectrum of EPA waste codes. Other services include, chemical and radioactive decontamination services, radiation instrument calibration, radiation safety training, and consulting.

#### **Nuclear Engineering International**

Contact: Scott Galvin Booth #: 436

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Nuclear Engineering International is now in its 50th year of publication. Having been published since the very birth of commercial nuclear power in 1956, NEI has a unique position within the industry and an enviable reputation for providing independent, technical and business analysis for the nuclear power industry. Renowned for reliable and quality editorial reports, it's a must for anyone working in this dynamic industry. NEI is sent to a carefully targeted audience of utility executives and managers, private project owners, power plant managers, engineering and environmental consultants, financial experts and investment companies, independent power producers, government energy bodies, mechanical and electrical engineers and equipment manufacturers and suppliers. NEI has over 1000 independent paying subscribers - a clear indicator that NEI is the magazine that professionals in the nuclear power industry turn to first for the information they need. **Nuclear Filter Technology** 

Contact: Heather Klebba Booth #: 408

741 Corporate Circle, Suite R Golden, CO 80401 USA P: 303-384-9785 F: 303-384-9579 Email: heather@nucfil.com Website: www.nuclearfilter.com

Nuclear Filter Technology is dedicated to providing superior packaging, shielding and characterization technologies for ventilation, storage, transportation and disposal of radioactive and mixed waste.

#### **Nuclear News**

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Nuclear News, celebrating its 50th year in 2009, has been an integral part of the advertising plans of more than 1600 corporations to promote their products, services, and employment opportunities to our nearly 11,000 readers every month. Nuclear News is the monthly membership magazine of the American Nuclear Society–the recognized credible advocate for advancing and promoting nuclear science and technology

#### **Nuclear Plant Journal**

Contact: Newal Agnihotri Booth #: 229

799 Roosevelt Road #6-208 Glen Ellyn, IL 60137 USA P: 630-858-6161 F: 630-858-8787 Email: newal@goinfo.com Website: www.npjonline.com

Nuclear Plant Journal, a US publication, provides technical information exchange among managers and engineers in the industry worldwide. Circulation: 12,000, 44 countries, BPA Audited. Published six-times per year. Annual Products & Services Directory published in January.

#### NuclearStreet.com / Radium Inc.

Contact: Cam Abernethy Booth #: 543 New Exhibitor

435 Essex Avenue, Suite 7 Waynesboro, VA 22980 USA P: 803-414-4445 F: 803-753-0067 Email: cabernethy@radiuminc.com Website: www.radiuminc.com

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Contact: Michael Rennhack Booth #: 1116

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Contact: Keith Joy Booth #: 605

PO Box 2008, MS 6419 Oak Ridge, TN 37831 USA P: 865-576-5484 F: 865-241-4095 Email: joyks@ornl.gov Website: www.ornl.gov/smallbusiness

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#### **Off-Site Recovery Project at LANL**

Contact: Kathleen F. kftrujillo@lanl.gov Booth #: 139

PO Box 1663, MS E521 Los Alamos, NM 87545 USA P: 505-667-6394 F: 505-665-1235 Email: lorrain@lanl.gov Website: www.osrp.lanl.gov

The Off-Site Source Recovery Project (OSRP) is part of the National Nuclear Security Administration's (NNSA) Office of Global Threat Reduction (NA-21) and is managed at Los Alamos National Laboratory through the Nuclear Nonproliferation Division. OSRP has an NNSA sponsored mission to remove excess, unwanted, abandoned, or orphan radioactive sealed sources from the environment that pose a potential risk to health, safety, and national security.

#### ORAU / ORISE

Contact: Jennifer Callais Booth #: 323 New Exhibitor

210 Badger Avenue, PO Box 117, MS 44 Oak Ridge, TN 37831 USA P: 865-576-9559 Email: jennifer.callais@orau.org Website: www.orau.org

ORAU manages the Oak Ridge Institute for Science and Education (ORISE) for the department of Energy and holds several other contracts with federal agencies. Core Competencies include Worker/public health and independent verification of environmental cleanup, weapons of mass destruction national preparedness and emergency response, and science education, workforce development, and scientific review programs.

#### ORTEC

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Contact: Carin Ferris Booth #: 339

1638 Rosey Town Road Suite 2 Greensburg, PA 15601 USA P: 724-244-2636 F: 724-850-5601 Email: carin.ferris@pacelabs.com Website: www.pacelabs.com

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2532 Camino Entrada Santa Fe, NM 87507 USA P: 505-424-6660 x 103 F: 505-424-1109 Email: acobb@pajaritoscientific.com Website: www.pjaritoscientific.com

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Contact: Karen Knoblock Booth #: 619-621

707 County Road E. West Shoreview, MN 55126-7007 USA P: 651-528-5275 F: 651-483-2689 Email: kknoblock@par.com Website: www.par.com

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Contact: Lindy Edwards Booth #: 723

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Contact: Rob Despain Booth #: 829

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Contact: Allen Reeves Booth #: 1001

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500 Lincoln Street York, PA 17401 USA P: 717-434-1802 F: 717-843-5733 Email: jstouch@pcc-york.com Website: www.pcc-york.com

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#### **Quality Inspection Services, Inc.**

Contact: Lori Jacobs Booth #: 232

37 Franklin Street, Suite 400, Cathedra Towers Buffalo, NY 14202 USA P: 716-853-2611 F: 716-853-2619 Email: Ijacobs@QISI.com Website: www.QISI.com

Quality Inspection Services, Inc. has been providing Nondestructive Testing, Civil Material Testing, Quality Assurance and Quality Control Services since 1987. Quality Inspection Services operates to an ASME NQA-1 Quality Assurance Program, operating at the West Valley Demonstration Project, Hanford, National Enrichment Facility and INEL sites providing QA/QC, NDE and Civil Material Testing Services.

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Contact: Allen Neal Booth #: 238

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Radwaste Solutions is the only magazine serving the nuclear waste management and cleanup business segments of the industry. In the United States, this business is centered on four industry subsets: (1) the Department of Energy's remediation of its weapons production and research facilities: (2) the DOE's civilian radioactive waste activities; (3) nuclear utilities, and (4) nonpower, non-DOE activities. Also, other countries are cleaning up and decommissioning their government nuclear facilities and older nuclear power plants, and U.S. businesses are increasingly obtaining contracts and subcontracts to perform this work. NOTE: A complimentary copy of the current issue is included in your WM2009 registration packet!

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Contact: Robert Kozma Booth #: 231

101 Duncraig Drive, Suite 103 Lynchburg, VA 24502 USA P: 434-525-4734 F: 434-525-7058 Email: robert@rivertechnologies.biz Website: www.rivertechnologies.biz

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Contact: Robert Runge Booth #: 642 New Exhibitor

PO Box 344 Springville, NY 14141 USA P: 716-592-3980 F: 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**

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5146 Remington Road Roanoke, VA 24018 USA P: 540-520-6900 Email: tgrochowski@robateltech.com Website: www.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.

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Contact: Edgardo Berrios Booth #: 1036

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Contact: John Hauser Booth #: 230

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Contact: Charles Vallance Booth #: 432 New Exhibitor

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#### **UniTech Services Group**

Contact: Gregg Johnstone Booth #: 711

295 Parker Street Springfield, MA 1151 USA P: 413-543-6911 x 16 F: 413-543-6989 Email: gjohnstone@unitech.ws Website: www.u1st.com

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.

#### **URS Washington Division**

Contact: Bill Whiting Booth #: 1017

106 Newberry Street SW Aiken, SC 29801 USA P: 803-502-9963 F: 803-502-9795 Email: william.whiting@urscorp.com Website: www.wgint.com

Washington Group International, Inc. provides the talent, innovation, and proven performance to deliver integrated engineering, construction, and management solutions for businesses and governments worldwide. With 27,000 employees in more than 40 states and 30 countries, the company provides professional, scientific, management, and development services in over two dozen major markets.

#### **US DOE NV Site Office**

Contact: Dona Stevens Booth #: 728-732

232 Energy Way, 505 AMEM N. Las Vegas, NV 89030 USA P: 702-295-3082 F: 702-295-5300 Email: dona.stevens@nv.doe.gov Website: www.nv.doe.gov

The US Department of Energy (DOE) National Nuclear Security Administration Nevada Site Office Environmental Management Program is responsible for addressing contamination from historic nuclear testing in Nevada; Nevada Test Site environmental protection activities, and; the disposal of low-level and mixed low-level radioactive waste generated at DOE and US Department of Defense cleanup sites.

#### **US DOE Offfice of Environmental Management**

Contact: Timothy Walsh Booth: 531

1000 Independence Ave, SW EM-41 RM 1J018 Washington, DC 20585 USA P: 202-586-6249 F: 202-586-7422 Email: <u>empdc@hq.doe.gov</u> Website: <u>www.em.doe.gov</u>

The mission of the Office of Environmental Management (EM) is to complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development and government-sponsored nuclear energy research.

#### **US DOE Office of Legacy Management**

Contact: Tony Carter Booth #: 716

1000 Independence Ave SW Washington, DC 20585 USA P: 202-586-3323 F: 970-248-7646 Email: tony.carter@hq.doe.gov Website: www.lm.doe.gov

The U.S. 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 longterm 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 DOE Yucca Mountain Project**

Contact: Mary Nichols Booth #: 737-739

1180 Town Center Drive Las Vegas, NV 89144 USA P: 702-821-8046 Email: mary\_nichols@ymp.gov Website: www.ocrwm.doe.gov

The US DOE Yucca Mountain Project is one of the primary activities of the US Department of Energy's Office of Civilian Radioactive Waste Management (OCRWM), the agency tasked with the development and management of a safe system to dispose of spent nuclear fuel and high-level radioactive waste.

#### **US Ecology**

Contact: Chris Laney Booth #: 702-704

300 E. Mallard, Suite 300 Boise, ID 83706 USA P: 800-590-5220 F: 208-331-7900 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: Cavanaugh Mims Booth #: Specialty Vehicle A

111-B Union Valley Road Oak Ridge, TN 37830 USA P: 865-482-8670 F: 865-482-8678 Email: vscorp@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 Technologies

Contact: Phil Ohl Booth #: 715

1355 Columbia Park Trail Richland, VA 99352 USA P: 509-737-1377 F: 509-737-1383 Email: ohl@vistaengr.com Website: www.vistaengr.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. (delete) 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

Contact: Andrew Mertz Booth #: 1034

89 Carlough Road Bohemia, NY 11716 USA P: 631-589-8800 x 1172 F: 631-588-8992 Email: amertz@vjt.com Website: www.vjt.com

V.J. Technologies, Inc. is the leader in the provision of X-ray inspection systems for the nuclear, aerospace and military industries utilizing advanced X-ray technologies. Customized systems meet specific plant requirements, yet are based on our proven designs that benefit from our many years of experience operating and maintaining X-ray inspection systems.

#### **Vulcan Global Manufacturing Solutions**

Contact: Brendan Cryns Booth #: 938 New Exhibitor

1400 W. Pierce Milwaukee, WI 53204 USA P: 414-645-2040 Email: bcryns@vulcangms.com Website: www.vulcangms.com

VulcanGMS is an ISO 9001/2000 registered manufacturer of radiation shielding solutions to medical, security, utility, military, aerospace & other industries. VulcanGMS specializes in lead, tungsten, metal polymers & high-density plastics, and other advanced materials solutions. The company produces cast, extruded, sintered & formed metallic parts, specialty injection mold products, nuclear waste transport and storage containers, & simple to complex fabrications & assemblies.

#### W.I.P.P

Contact: Bobby St. John Booth #: 233

Washington TRU Sol., PO Box 2078 Carlsbad, NM 88220 USA P: 505-234-7348 F: 505-234-7002 Email: bobby.stjohn@wipp.ws Website: www.wipp.energy.gov

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.

#### Wagstaff Applied Technologies

Contact: Michael Niccolls Booth #: 517 New Exhibitor

3910 N. Flora Road Spokane, WA 99216 USA P: 509-927-3321 F: 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, LLC

Contact: Candance Greenwood Booth #: 514-516

PO Box 1129 Andrews, TX 79714 USA P: 575-394-4300 F: 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, Texas. WCS is currently authorized to treat and store a broad range of hazardous, toxic, and radioactive waste including all classes of LLRW, TRU, and GTCC; and dispose of LDR compliant toxic, hazardous, and NORM waste. In October 2007, WCS received a draft license to also dispose of 11e(2) Byproduct material and a draft disposal license for Class A, B and C LLRW from the Texas Commission on Environmental Quality is pending. Disposal under the new licenses is scheduled to begin April 2009 and February 2010, respectively, after the requisite public comment periods, hearings and facility construction.



**Trinitek Services, Inc.** Nuclear and Environmental Safety Consultants

#### Trinitek Services proudly supports the WM2009 Conference.

We are Environmental and Nuclear Scientists, Health Physicists, Nuclear Engineers, Safety Engineers, Hazardous Materials Managers, and former Regulators consulting in:

Radioactive and Hazardous Waste Management Decommissioning & Environmental Restoration Shipment and Transportation of RAM Safety regarding Radiation, Chemical, Electrical, and Physical Hazards

NRC DOE/NNSA EPA States DOT

Radioactive Material Licensing RCRA, TSCA, NPDES Permitting Environmental Impact Statements, Assessments, Reports

Advisors **Staff Augmentation** Advocacy

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#### West Metal Works

Contact: David Wojtkowiak Booth #: 642 New Exhibitor

201 Dutton Avenue, Buffalo, NY 14211 USA P: 716-895-4900 F: 716-895-4861 Email: davew@westmetalworks.com Website: westmetalworks.com

Established in 1946, West Metal Works, Inc. has become a leader in the precision fabrication industry.

Our capabilities include custom fabrication, machining, welding and design/development. Stringent Q.A. procedures, along with our vast experience have made West Metal Works the "Proven Choice" for customers such as DOE, DOD and NASA.

#### Westerman Companies

Contact: Jim Christian Booth #: 328-332

245 N. Broad Street, PO Box 125 Bremen, OH 43107 USA P: 740-569-4143 F: 740-569-4111 Email: jchristian@westermancompanies.com Website: www.westermancompanies.com

At Westerman Companies we adhere to the Nuclear Industries most stringent manufacturing requirements in providing top quality ASME Section III Material Certification services, plus reactor subassembly/component fabrication. We also manufacture Radwaste Containers to ASME NQA-1 and ISO certification standards. Strong experience, demonstrated ability and safety/service record since 1986.

#### Westinghouse Electric Company

Contact: Claudia Scott Booth #: 331-333

4350 Northern Pike Monroeville, PA 15146 USA P: 412-374-6503 F: 412-374-3777 Email: sepp1ha@westinghouse.com Website: www.westinghousenuclear.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<sup>™</sup> 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.

#### WMG, Inc.

Contact: Mark Trager Booth #: 810

16 Bank Street Peekskill, NY 10566 USA P: 914-736-7100 F: 914-736-7170 Email: mtrager@wmginc.com Website: www.wmginc.com

WMG has over 25 years of experience supporting all aspects of radioactive materials management. Our services include: Specialty Characterization, Major Component Disposal, Standard & Customized Software, D&D Engineering Support, On-Site Project Management, Package Design & Licensing/Permitting, Regulatory Training, Spent Fuel Pool Cleanup, and GTCC Waste Management. We support most of the nation's operating nuclear power plants, commercial LLRW processing facilities and several DOE sites and facilities.

For information on exhibiting at WM2010, please contact Cali Adkisson with M.Y. Events, Inc. at 480-968-7559 or by email at exhibits @wmarizona.org.

### EXHIBITOR LIST BY BOOTH NUMBER AS OF JANUARY 26, 2009

101 - B	Mammoet	432	Underwater Construction Corporation
101 - A	Mega-Tech Services, LLC	433	E2 Consulting Engineers, Inc.
106	Parsons	434	Alliant Corporation
112	Bartlett Services, Inc.	435	SSM Industries, Inc.
124	Doerfer Companies	436	Nuclear Engineering International
124	•	437	
	Doerfer Companies' Wheelift Systems		IAP Worldwide Services, Inc.
130	ICx Radiation	438	LND, Inc.
131	Edwards Moving & Rigging, Inc.	439	River Bend Transfer Systems, LLC
132	Hukari Technical Services, Inc		
138	Layne Christensen Company	500	TestAmerica, Inc.
139	Off-Site Recovery Project at LANL	501	E.H. Wachs Company
		502	S.A. Robotics
223	Brokk, Inc.	503	Dade Moeller & Associates
229	Nuclear Plant Journal	504	Commodore Advanced Sciences, Inc.
230	Tri-State Motor Transit Company	505	Garlock Helicoflex
231	River Technologies, LLC	506	Radiation Safety & Control Services
232	Quality Inspection Services, Inc.	507	BIGGE Power Constructors
233	W.I.P.P	508 - 510	AECOM
238	R & R Trucking	509 - 511	GETINGE La Calhene, Inc.
		514 - 516	Waste Control Specialists, LLC
301	AREVA	515	S.M. Stoller Corporation
309	American Radiation Services, Inc.	517	Wagstaff Applied Technologies
311	Major Tool & Machine, Inc.	518 - 520	AttentionIT, Inc.
315	AMEC Nuclear Ltd.	519	Millennium Services, Inc.
321		521	
	Cast Transportation		Robatel Technologies LLC
323	ORAU / ORISE	522 - 524	Enercon Services
325	Absorbtek, LLC	523	QinetiQ North America
328 - 332	Westerman Companies	525	Applied Research Center at FIU
329	Precision Custom Components, LLC	528	General Plastics Mfg. Co
331 - 333	Westinghouse Electric Company	529	DW James Consulting, LLC
335	Fontijne Grotnes B.V.	530	IAEA Careers - Argonne National Lab
337	American Crane & Equipment Corp.	531	US DOE Office of Environmental Mgmt
339	Pace Analytical Services, Inc.	532	International Isotopes
343 & 442	Pajarito Scientific Corporation	533	UKAEA
345	IBC Advanced Technologies, Inc.	534 - 536	American DND, Inc.
	0		
347	Post Prof Opportunities Campus	538	Inventure Laboratories, Inc.
404		539	American Nuclear Society
401	Pentek, Inc.	539 - B	Nuclear News
403	Container Technologies Industries	539 - C	Radwaste Solutions
405 - 407	ECC	542	INTERA Incorporated
408	Nuclear Filter Technology	543	NuclearStreet.com / Radium Inc.
409	CDM		
410	Paragon Analytics	602	IMPACT Services, Inc.
411	DZ Atlantic	603	Hot Cell Services Corporation
415	Reef Industries, Inc.	604	ORTEC
417	UltraTech International, Inc.	605	Oak Ridge National Laboratory
419		606	ANTECH Corporation
	Navarro Research and Engineering		•
420	Tetra Tech, Inc.	607 - 609	MACTEC
421	Strata - G	608	NUCON International, Inc.
422	Trentec / Division of Curtiss-Wright	610	E.J. Brooks Company
423 - 425	Ceradyne, Inc.	611	Clean Harbors Environmental Services
424	ABW Technologies, Inc.	614 - 616	Lockheed Martin
428 - 430	North Wind, Inc	615	CH2M HILL
429	Barnhart Nuclear Services	617	Studsvik, Inc.

#### **EXHIBITOR LIST BY BOOTH NUMBER AS OF JANUARY 26, 2009**

$\begin{array}{c} 618 - 620 \\ 619 - 621 \\ 622 - 624 \\ 623 \\ 625 \\ 628 - 630 \\ 629 \\ 631 - 633 \\ 632 \\ 634 \\ 635 \\ 637 - 639 \\ 638 \\ 642 \\ 642 \\ 642 \end{array}$	Premier Technology, Inc. PaR Systems, Inc. MGP Instruments, Inc. NSSI Ecotone Services, Inc. Eberline Services, Inc. Central Research Laboratories Burns and Roe CBI Polymers Nat'l Museum of Nuclear Science & Hist Microfiltrex - Division Porvair Filtration Northrup Grumman Corporation Joseph Oat Corporation RJR Engineering, PC West Metal Works
701 702 - 704 706 708 710 711 714 715 716 717 718 720 722 723 724 720	EnergySolutions US Ecology GEL Laboratories, LLC GoldSim Technology Group, LLC Longenecker & Associates, Inc. UniTech Services Group Golder Associates, Inc. Vista Engineering Technologies US DOE Office of Legacy Management Cavanagh Services Group, Inc. Eastern Technologies, Inc. PacTec, Inc. Frham Safety Products, Inc. Perma-Fix Environmental Services Teledyne Brown Engineering
728 - 732	US DOE NV Site Office
729	Chesapeake Nuclear Services, Inc.
731	Kleinfelder
733	ACHMM
734	Container Products Corporation
735	Diversified Metal Products
736	Greenfield Logistics, LLC
737 - 739	US DOE Yucca Mountain Project
738	Columbia Energy & Environmental Svc
743	Commercial Vehicle Safety Alliance
749	Alaron Corporation
810	WMG, Inc.
814	International Nuclear Services
828	Environmental Dimensions Inc. (Edi)
829	Petersen, Inc.
830 - 832	Cabrera Services, Inc.
835	Mid-Columbia Engineering
836	Environmental Rail Solutions, Inc.
838	Advanced Technologies & Lab Intl.
838	Netzsch Instruments, Inc.

MHF Logistical Solutions, Inc.

900

929 934 935 - 939 936 938	Fluor Government Group MSE Technology Applications, Inc. National Nuclear Laboratory Ltd. hydroGEOPHYSICS, Inc. Vulcan Global Manufacturing Solutions
1001	Power Products and Srvs Company
1003	Shaw Group, The
1005	SAIC
1011	Safety & Ecology Corporation - SEC
1017	URS Washington Division
1023	I.C.E. Service Group, Inc.
1034	VJ Technologies
1035	Mobile Characterization Services, LLC
1036	THOR Treatment Technologies
1116	NukeWorker.com
Vehicle A	Visionary Solutions, LLC
Vehicle B	ICM
Vehicle C	Pentek, Inc.
Vehicle D	MACTEC

Subject to change



The WM2010 Conference will be held at the Phoenix Convention Center West Building March 7 - 11, 2010.

For more information on exhibiting at the conference or sponsorship opportunities, please contact Cali Adkisson with M.Y. Events, Inc. at <u>exhibits@wmarizona.org</u> or by phone at +1 520-696-0399.

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. Open sell for new exhibitors will begin July 15, 2009.

#### NOTES

#### NOTES

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#### Roy G. Post Foundation Benefit Golf Tournament 2009

#### The Golf Tournament at the Raven Golf Club at South Mountain Saturday, February 28, 2009 was a Success!

The Roy G. Post Foundation, a 501(c)(3) foundation dedicated to education in the safe management of nuclear materials in honor of WMS Founder, Dr. Roy G. Post.

All proceeds goes to scholarships and awards for the next generation of nuclear scientists and engineers. In 2009 The Roy G. Post Foundation will award 6 scholarships! Please join us on Tuesday at the Awards and Honors Luncheon to honor the students that have worked so hard to make it to the conference. We will see you at the Golf Tournament in 2010!

### Thank you to our 2009 Post Foundation Sponsors and we look forward to their Continued Support in 2010!





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The conference is organized in cooperation with the World Nuclear Association, the U.S. Department of Energy, the U.S. Nuclear Regulatory Commission and the International Atomic Energy Agency.