Final Program

WM'2K

"HLW, LLW, Mixed Wastes and Environmental Restoration — Working Towards A Cleaner Environment"

Hosted and sponsored by The University of Arizona, also sponsored by the American Nuclear Society, the American Society of Mechanical Engineers, New Mexico State University and the Waste-management Education and Research Consortium (WERC), and NEA/OECD. The conference is organized in cooperation with the U.S. Department of Energy and the International Atomic Energy Agency.

February 27 - March 2, 2000

Tucson, Arizona

printed on recycled paper

FULL CONFERENCE SCHEDULE

ROOM LOCATION	MONDAY				TUESDAY		WEDNESDAY		THURSDAY
START TIME	8:00 AM	10:30 AM	2:00 PM	5:00 PM	8:30 AM	1:30 PM	8:30 AM	1:30 PM	8:30 AM
MUSIC HALL	1		LUNCH						
MOHAVE		4	18		29	40	43	51	66
MARICOPA		2	17		26	33	47	57	62
GRAHAM		8	20		30	35	49	59	61
GREENLEE		10	16		25	38	42	53	64
GILA		9	13		28	32	50	58	65
COCONINO		6	19		23	39	44	52	68
APACHE COCHISE									
COPPER (NEW TCC)		5	14		24	37	48	56	63
CRYSTAL (NEW TCC)		7	15	TCC	27	34	45	54	67
TURQUOISE (NEW TCC)		3	12		22	36	46	55	60
EX-HALL A,B,C (NEW TCC)			*11		*21	*31	*41		

*Times will vary on these sessions, please check program.

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
How Clean is Clean? Workshop CANCELLED Holiday Inn, Empire West Ballroom **Welcome Reception** 5:00 - 8:00 p.m. Exhibit Hall — Exhibits Open	**Utility Roundtable** 5:00 - 7:00 p.m. Mohave Room, TCC **Greening the Government: ...** 5:30 - 7:30 p.m. Turquoise Room, TCC **WERC Short Courses** Apache/Cochise 3:00 - 7:00 p.m. **Exhibit Hours:** 10:00 a.m. - 6:00 p.m. **Exhibit Reception:** 4:30 - 6:00 p.m.	**Teacher's Workshop** 4:00 - 9:00 p.m. Apache/Cochise, TCC **Materials Disposition** 5:30 - 7:30 p.m. Mohave Room, TCC **Exhibit Hours** 9:30 a.m. - 6:00 p.m. **Exhibit Reception — 4:30 - 6:00 p.m.**	**Exhibit Hours** 9:30 a.m. - 1:00 p.m. **Exhibit Move-out — 1:00 p.m.** **Old Tucson** 6:00 - 11:00 p.m. **Biosphere 2** 6:00 - 11:00 p.m. **Buses depart at 5:30 p.m. for both events**	**Exhibit Move-out** 8:00 a.m. - 2:00 p.m.

MONDAY AM, FEBRUARY 28, 2000

8:00 am - Introduction — Music Hall, TCC

1. Welcome — General Chair — *Leon Borduin, Consultant/LANL*
2. Welcome to Tucson and the University of Arizona — *Thomas W. Peterson, Dean, College of Engineering & Mines, University of Arizona*
3. Welcome and Presentation of Awards — *Andrew Kadak, President, American Nuclear Society*

   Best Poster Paper — WM'99

   Processing of Pantex Plant Wet Waste for Disposal at the Nevada Test Site

   Kenneth Guay, Chris Reno, Matthew Cage, Ellen Gray, GTS Duratek Incorporated;*

   Pam Davis, Mason & Hangar Corporation (USA)

   Best Oral Paper — WM'99

   Radiation Exposure: Overcoming Vested Interests that Block Good Science

   Stanley Logan, S. E. Logan and Associates, Inc. (USA)7*

4. Welcome and Presentation of Awards from ASME — *William T. Gregory, III, (Past Chairman, ASME-NED)*

   Best Poster Paper — Honorable Mention — WM'99

   The Oak Ridge Broad Spectrum Contracts for Treatment of Mixed Low Level Waste

   Charles H. Estes, Kenneth D. Simpson, Bechtel Jacobs Company; Fred H. Miller, Jacobs Engineering Group, Inc. (USA)*

   Best Oral Paper — Honorable Mention — WM'99

   Sampling and Analysis Validates Acceptable Knowledge on LANL Transuranic, Heterogeneous, Debris Waste or "Cutting the Gordian Knot that Binds WIPP"

   Stanley T. Kosiewicz, LANL; Daniel I. Michael, Paul K. Black, Neptune and Co.; Lawrence A. Souza, Ines R. Triay, LANL (USA)*

   * will be accepting award

8:00 am Session 1 — Music Hall

CoChairs: William T. Gregory III, Vinculum
Andrew Kadak, American Nuclear Society

1. Let's Stop Regulating - Harmless Levels of Radiation — *Theodore Rockwell, Founding Officer, Radiation, Science & Health, Inc. and of MPR Assoc., Inc. (USA)*
2. Recent Developments in the French Program for High Level Long Lived Radioactive Waste — *Y. Le Bars, Chairman of the Board, ANDRA (FRANCE)*
3. A Local Perspective on a Deep Geological Repository in My Backyard — *Gary Perkowski, Mayor of Carlsbad, New Mexico (USA)*

3. The Definition of Disposal, the Unit Boundary, and the Point of Compliance: Their Regulatory Development and Implications for WIPP — *C. Wayman, USDOE; E. Gordon, Commodore Advanced Sciences Inc.; G. L. Scott, USDOE (USA)*
4. Alternative Flow Models at Yucca Mountain; State of Nevada-Funded Research — *L. Lehman, T-Reg, Inc. (USA)*
5. Start of Radioactive Test in the "Quantitative Assessment Radionuclide Experimental Facility (QUALITY)" for Fundamental Study on Nuclide Migration Behavior in Deep Geological Environment — *H. Igarashi, K. Kawamura, K. Yamada, M. Yui, Japan Nuclear Cycle Development Institute (JAPAN)*
6. Use of Performance Assessment Information to Evaluate Alternative Yucca Mountain Performance — *J. Kessler, EPRI, Inc. (USA)*
7. Gaining Public Confidence in Performance Assessment — *T. McCartin, J. Kotra, K. McConnel, E. Wolff, USNRC; S. Mohanty, Center for Nuclear Waste Regulatory Analyses (USA)*

2:00 pm Session 18 — Mohave Rm.

What is Going On in the USDOE Environmental and Cleanup Programs - Part I

CoChairs: Jim Wright, USDOE-SR
Gary Benda, U.S. Energy

1. Remediating Subsurface Contaminants I: Focus on Step Change — *K. Hooker, J. Wright, USDOE-Savannah River Operation (USA)*
2. Remediating Subsurface Contaminants II: Achieving Results — *J. Wright, K. Hooker, USDOE-Savannah River (USA)*
3. Inter Agency Thermal Technology Study (DNAPLS) — *T. Early, WSRC (USA)*
4. In-Situ Redox Manipulation for Treatment of Chromate in Groundwater at the Hanford 100D Area: Partnership for Technology Deployment — *J. Fruchter, M. Williams, V. Vermeul, J. Szecsody, W. Martin, PNNL; G. Henckel, J. April, Bechtel Hanford, Inc.; A. Tortoso, J. Hanson, D. Biancosino, J. Wright, T. Hicks, USDOE (USA)*
5. Teaming Success Using the Watershed Approach for the Melton Valley CERCLA Decision Document Effort — Oak Ridge Reservation, Oak Ridge, Tennessee — *J. S. Ford, E. Carreras, A. Zarbo, E. Krispin, USDOE (USA)*
6. Accelerating the Cleanup of DOE Rocky Flats - Developing a Closure Project Baseline — *N. Tuor, A. Schubert, Kaiser-Hill, LLC (USA)*

2:00 pm Session 19 — Coconino Rm.

Integrated Safety Management & Programmatic Risk Management U.S. Programmatic and Sites Perspectives

CoChairs: Robert Goldsmith, USDOE
Carol Peabody, USDOE

1. Linking Management Involvement to Workplace Safety Improvement — *R. Goldsmith, USDOE (USA)*
2. Institutionalizing ISMS Verification at DOE Sites — *D. Ruscitto, Kaiser-Hill Company, LLC (USA)*
3. Building Safety through Effective Project Management — *K. Wintz, Fluor Fernald (USA)*
4. Worker Perspectives on Integrated Safety Management — Worker Involvement in the ISM Process — *D. Fox, Bechtel-B&W Idaho, Inc. / INEEL (USA)*
5. Cascading Risk — The Key to Understanding Prioritizing, and Defining EM Integration Activities — *G.B. Frandsen, Bechtel - B&W Idaho, Inc. (USA)*

2:00 pm Session 20 — Graham Rm.

The 1996 EMSP Grants - The Results Are In

CoChairs: Thomas Williams, USDOE
Noeleen Tillman, Global Environmental & Technology Foundation

1. Environmental Management Science Program Overview — *T. Williams, USDOE (USA)*
2. EM Science Program Review and Path Forward — *R. R. Stiger, F. X. Murray, Global Environment & Technology Foundation (USA)*
3. DOE's EMSP Projects Pose the Potential for Favorable Changes to Regulations — *L. P. Leach, Quality Systems (USA)*
4. Innovative Technologies from the Environmental Management Science Program — *W. J. Quapp, N. Tillman, Global Environment & Technology Foundation (USA)*
5. Environmental Management Science Program (EMSP) Competing and Complementary Methodologies: Opportunities and Challenges — *F. X. Murray, Global Environment & Technology Foundation (USA)*
6. Carbon Nanofibers for Enviromental Applications — *P. E. Anderson, E. Engel, A. Crowe, C. Park and N. M. Rodriguez, Northeastern University (USA)*
7. Management Tools to Identify Users for Basic Research: PNNL's Approach to Transition EMSP Research to Solve Site Problems — *C.D. Carlson, W.L. Kuhn, L.M. Peurrung, R.K. Quinn, PNNL (USA)*
8. The Development of Toxicokinetic and Toxicodynamic Data for Improving the Characterization of Trichloroethylene's Effects at Low Doses — *R.J. Bull, B.D. Thrall, L.B. Sasser, I.R. Schultz, J.H. Miller, PNNL (USA)*

8. Building Confidence in U.S. Nuclear Regulatory Commission Quantitative Safety Assessment Methods: External Peer Review of the Total-System Performance Assessment Version 3.2 Code — *J.R. Weldy, G.W. Wittmeyer, D.R. Turner, Center for Nuclear Waste Regulatory Analyses (USA)*

8:30 am Session 24 — Copper Rm.

Panel Session: Global Perspective

CoChairs: Mark Matthews, USDOE - Carlsbad Area Office
John Mathieson, UK Nirex Ltd.

A panel session of high level officials from nuclear waste management organizations in several different nations will take place. The officials will discuss concerns and opportunities regarding waste management issues; and they will engage in an interactive dialog on roadblocks and solutions.

Panel members include Yves Le Bars, Chairman of the Board of ANDRA of France; Juergen Lempert, President of DBE of Germany; Peter Nygards, President of SKB of Sweden; Ines Triay, Manager of DOE/CAO; and Mary Kruger, Director of Federal Regulations of EPA/ORIA.

8:30 am Session 25 — Greenlee Rm.

Waste Minimization Activities

CoChairs: Lance J. Mezga, ORNL
Hironobu Okamoto, JNC

1. Sustainable Production in the Mining Industry: By-Product Recovery — *J. Berry, J. J. Ferrada, L. R. Dole, J. W. Van Dyke, Oak Ridge National Laboratory (USA)*
2. Assessment of Cost Savings of DOE's Return-on-Investment Program — *K. Hancock, USDOE; K. L. Yuracko, B. Tonn, M. Morris, ORNL (USA)*
3. Decontamination-Melting of Uranium - Contaminated Metal — *J. Lorenzen, M. Lindberg, Studsvik Rad Waste (SWEDEN)*
4. Reuse of Cargo Containers for Low Level Waste Shipments to NTS — *A. Church, Rocky Mountain Remediation Services, L.L.C.; M. Anderson, SUMMIT Technical Resources, Inc. (USA)*
5. Demilitarization of Classified Waste as a Waste-Minimization Technique — *B. Galloway, SNL; P.J. Slavin, GRAM, Inc.; G. VanDerpoel, IT Corporation (USA)*
6. Radioactive Laundry Waste Treatment System Without Secondary Waste Generation — *J.-K. Park, S.-M. Park, J.-B. Kim, M.-C. Lee, M.-J. Song, Nuclear Environment Technology Institute (KOREA)*
7. Pilot Scale Test of the Sonatol Dry Cleaning Process — *A. E. Desrosiers, Bartlett Services, Inc.; R. Kaiser, Entropic Systems, Inc. (USA)*

8:30 am Session 26 — Maricopa Rm.

TRU WM Disposal Initiatives at DOE Sites — The Road to WIPP is Open

CoChairs: Stan Kosiewicz, LANL
Tom Clements, BBWI

1. The National Transuranic Waste Program: Providing Solutions for the Management of all Transuranic — *R. A.. Stroud, USDOE; M. S. Kearney, Roy F. Weston, Inc. (USA)*
2. WIPP: EPA's TRU Waste Generator Site Approval Process — *J. Oliver, S. Monroe, USEPA (USA)*
3. A Little Here, A Little There, A Fairly Big Problem Everywhere: Small-Quantity-Site Transuranic Waste Disposition Alternatives — *D. Luke, INEEL; L. Fritz, USDOE; D. Parker, J. Moss, INEEL; B. Daugherty, Savannah River Site; K. Hladek, Waste Management Federal Services Hanford, T. Monk, INEEL; S. Kosiewicz, LANL (USA)*
4. Components and Processes that Enabled Los Alamos National Laboratory to Ship Transuranic Waste to WIPP or What it Took to Smooth the Final Speed Bumps on the Road to WIPP — *D. R. Yeamans, S. Kosiewicz, P. S. Z. Rogers, S. G. Wander, LANL (USA)*
5. On the Road to WIPP: Idaho National Engineering and Enviromental Laboratory Experiences — *T. L. Clements, Jr., Bechtel-B&W Idaho / INEEL (USA)*
6. TRU Confessions — Real Life Experiences in Shipping Transuranic Waste to the Waste Isolation Pilot Plant from the Rocky Flats Environmental Technology Site — *L.A. Lewis, E.L. D'Amico, G. A. O'Leary, Rocky Mountain Remediation Services (USA)*
7. The Advantage of Fixed Facilities in the Characterization of TRU Waste — *M.S. French, USDOE; P.J. Macbeth, Dames & Moore, Inc. (USA)*

8:30 am Session 27 — Crystal Rm.

Progress at Waste Stabilization & Disposal at Hanford: The View From the Top

CoChairs: Richard T. French, ORP - USDOE
Keith Klein, USDOE

1. The Office of River Protection — Managing and Disposing of Hanford Site's High-Level Waste — *R. T. French, D. D. Wodrich, USDOE (USA)*
2. Hanford Site River Protection Project High-Level Waste Safe Storage — *J. J. Kinzer, USDOE; M. P. Delozier, J. G. Kristofzski, CH2M Hill (USA)*
3. Retrieving and Disposing Hanford's High-Level Waste — *E.J. Cruz, P.E. LaMont, W. J. Taylor, D. D. Wodrich, USDOE (USA)*
4. The River Protection Project — Waste Treatment Plant: BNFL's Approach to the Treatment of Hanford Tank Wastes — *M. Lawrence, BNFL, Inc. (USA)*

28. Characterization of Plutonium Contamination in the Peconic River — *W. Medeiros, J. Remien, K. White, BNL; J. Meersman, Bechtel National Inc.; R. Simeone, USDOE; D. Duh, IT Corporation (USA)*
29. Transparency Demonstration of Underground Radiation & Environmental Monitoring — *B. Schoeneman, SNL; D. A. Hofer, WID (USA)*
30. WIPP Transparency Project Authenticated Tracking & Monitoring System — *J. L. Schoeneman, H. Smartt, SNL; D. A. Hofer, WID (USA)*
31. Ways of Resolving Active Metal Waste Processing Problems — *V. G. Pastushkov, V. P. Serebryakov, T. V. Smelova, SSC RF VNIINM (RUSSIA)*
32. Safe Bag Change System for Alpha Contaminated HFC Pucks — *J. Sims, JS Consultants (UK)*
33. Rocky Flats Environmental Technology Site (RFETS) Deployment of the Super High Efficiency Neutron Coincidence (SuperHENC) Counter, a Mobile Passive Neutron Counting System for Standard Waste Boxes — *D. J. Santi, J. B. Franco, Rocky Mountain Remediation Services, LLC; J. M. Boak, H. Menlove, Los Alamos National Laboratory; C. M. Brown, Kaiser-Hill, L.L.C (USA)*
34. Alternatives Study of a LLW/TRU Waste Analyzer for HB-Line — *R. Rainisch, WSRC (USA)*
35. MOVER, a Portable Nuclear Facility for Visual Examination and Repackaging of TRU Waste Drums — *R. Morley, D. Yeamans, G. Lussiez, P. Prince, LANL (USA)*
36. Drum-Coring Glovebox for Sampling Cemented TRU Waste — *R. Morley, D. Yeamans, J. Kinzer, P. Prince, M. Roybal, LANL (USA)*
37. Thermal Stress Monitoring in a Radiological Environment LAUR994363 — *G.M. Montoya, LANL; K.A. Shisler Jr., JCNM; S. W. Lewis, SAIC (USA)*
38. Facilitating TRU Waste Transportation Certification Using the e-TRAMPAC Code — *M. Devarakonda, E. Yarasheski, IT Corporation; S. Djordjevic, DJINDECO Consulting; P. Gregory, WEC; M. Connolly, Bechtel-B&W Idaho, Inc. / INEEL (USA)*
39. Maintenance Integration at the Waste Isolation Pilot Plant (WIPP) — *S. P. Youngerman, Westinghouse WID (USA)*
40. Expected Dose from CH-TRU Waste During an Accident at WIPP - A Probabilistic Approach — *D.F. Rucker, Environmental Evaluation Group (USA)*
41. Measurement of Hydrogen Diffusion Rates Through both "Twist and Tape", and Heat Sealed Polyurethane and Polyvinyl Chloride Bags — *T. Wickland, Nuclear Filter Technology; D. Dustin, Safe Sites of Colorado (USA)*
42. Operation of a Chemical Extraction Soil Treatment Plant for the Remediation of Uranium contaminated Soil at DOE Facility — *J. Kulpa, RMIES; W. Best, USDOE; J. Henderson, RMIES (USA)*

43. Los Alamos Plutonium Facility Waste Management System — *C. A. Smith, K. Smith, A. Montoya, R. Wieneke, D. Wulff, K. Gruetzmacher, LANL (USA)*
44. Streamlining the WIPP Waste Characterization Process — *M. R. Brown, USDOE; T. E. Bearden, NFT, Inc. (USA)*

1:30 pm Session 32 — Gila Rm.

USDOE Waste Disposal Options for LLW / MLLW

CoChairs: Angie Brill, Consultant
Terry L. Sams, Nuclear Fuel Services, Inc.

1. Cost Comparisons of On-Site Versus Off-Site Disposal of DOE Low Level Radioactive Waste — *G. J. Duggan, S. M. Birk, D. K. Vernon, Jr., Bechtel-B&W Idaho, Inc. / INEEL (USA)*
2. Envirocare of Utah: What the Future Holds for DOE Waste Disposal — *K. Loveland, Envirocare of Utah, Inc. (USA)*
3. Low-Level Radioactive Waste Management at the Nevada Test Site — Year 2000 Current Status — *B.D. Becker, Bechtel Nevada; W. A. Clayton, C.P. Gertz, USDOE; B. M. Crowe, LANL (USA)*
4. Special Handling Waste at the Environmental Restoration and Disposal Facility — *M. Casbon, Bechtel Hanford, Inc. (USA)*
5. Disposal of Mixed CERCLA Waste at the Oak Ridge Reservation in an On-Site Disposal Facility — *J. Williams, Bechtel Jacobs Company LLC; P. Corpstein, M. Reif, CH2M Hill (USA)*
6. Implementing the Corrective Action Management Unit at Sandia National Laboratories, New Mexico — *D. Moore, S. Schrader, G. King, SNL; J. Cormier, USDOE/ Kirtland Area Office (USA)*

1:30 pm Session 33 — Maricopa Rm.

The Waste Isolation Pilot Plant (WIPP) at the Beginning of the Third Millennium

CoChairs: Leif Eriksson, GRAM, Inc.
Ines Triay, USDOE

1. WIPP is Open - How We Got There, What We Have Done and Where We are Going — *J. L. Epstein, WID (USA)*
2. Resolution of Site Characterization Issues at the Waste Isolation Pilot Plant — *L. Chaturvedi, R.H. Neill, New Mexico Environmental Evaluation Group (USA)*
3. WIPP's Hazardous Waste Permit - The Next Step — *R. F. Kehrman, W. W. Weston, M. E. Whatley, Westinghouse Government Environmental Services Group; H. E. Johnson, USDOE (USA)*
4. WIPP's Transition from a Research Facility to an Operating Facility: The Path into the New Millennium — *I. Triay, J. Mewhinney, USDOE; R. Nelson, Jacobs Engineering (USA)*
5. The WIPP Mission: Could it be Expanded to Solve Other National Radioactive Waste Disposal Needs? — *L. Eriksson, GRAM, Inc. (USA)*

Panel Session:

The second half of this session will consist of a panel session. Confirmed panel members are: Joe Epstein, WID, Al Grella, NAS WIPP Committee, Mary Kruger, USEPA, Robert Neill, EEG, Paul Detwiler, USDOE-HQ, Gary Perkowski, Mayor of Carlsbad, Ines Triay, DOE-CAO, Wendell Weart, Sandia National Laboratories. Also invited are: Don Hancock, Southwest Research and Information Center and Peter Maggiore, Secretary, New Mexico Environment Department.

1:30 pm Session 34 — Crystal Rm.

Vitrification of Low-Level Radioactive Waste

CoChairs: Daro Ferrara, Westinghouse Savannah River Company
Piero Risoluti, ENEA

1. Leach-Resistant Glasses from the Fernald Surrogates with Redox Control for Practical Manufacturing — *D. H. Davis and D. M. Bennert, COGEMA Inc./Toledo Engineering Co., Inc.; G. Stegen, COGEMA Engineering Corp.; E. Nicaise, SGN (USA/FRANCE)*
2. Application of Spent CRT Glass for Low-Level, Mixed, and Hazardous Wastes Conditioning — *F. A. Lifanov, S. V. Stefanovsky, T. N. Lashtchenova, O. A. Knyazev, O. V. Tolstova, S. V. Chizhevskaya, SIA "Radon" (RUSSIA)*
3. Non-Combustible Waste Vitrification With Plasma Torch System — *J.K. Park, Y. P. Moon, M.C. Lee, M.J. Song, Nuclear Environment Technology Institute, KEPCO (KOREA)*
4. Development of a Continuous Induction Melter for Dry Active Waste Treatment — *T. Matsuo, T. Kondou, T. Nishi, M. Matsuda, K. Ueda, Hitachi Ltd. (JAPAN)*
5. Vitrification of Ash Residue in Containers — *I.A. Sobolev, O.K. Karlina, G.A. Varlakova, V.M. Tivansky, M.I. Ojovan, Moscow SIA "Radon"; K.M. Efimov, Institute of Ecological-Technological Problems; V.L. Tarasov, Foster Wheeler Environmental Corporation (RUSSIA/USA)*

1:30 pm Session 35 — Graham Rm.

Risk Assessment Projects of the Center for Risk Excellence

CoChairs: Alvin Young, USDOE
Donald Wood, GaeaTech Services

1. Tackling the Risk Issues in the DOE Complex — *A. L. Young, USDOE (USA)*
2. A Project Screening Approach to Prioritizing Environmental Management Technology Review — *J.L. Regens, Tulane University Medical Center; P.L. Wilkey, R.E. Zimmerman, ANL; M.C. Dionisio, USDOE; J.T. Gunter, Tulane University Medical Center (USA)*
3. Risk as a Metric in the Nuclear Materials Integration Project — *L. Borghi, SAIC; P. Siebach, R. Price, USDOE (USA)*
4. Integrating Risks at Contaminated Sites — *M. MacDonell, L. Habegger, L. Nieves, Z. Schreiber, ANL; C. Travis, Project Performance Corporation (USA)*

5. The Risk Assessment of Chemical Mixtures: A Conceptual Approach — *Z. Schreiber, M. MacDonell, ANL (USA)*
6. Managing Corporate Risk in the Face of Radiation Exposure Lawsuits — *N. R. Brendel, J. P. Englert, Kirkpatrick & Lockhart LLP (USA)*
7. Programmatic Risk Assessment at Rocky Flats: A Tool for Technology Deployment Decisions — *M. D. Maloney, Kaiser-Hill Company (USA)*
8. Estimation of Risk Reduction Resulting from Waste Management Operations — *S. Eide, J. Murphy, T. Wierman, Bechtel-B&W Idaho, Inc. / INEEL (USA)*

1:30 pm Session 36 — Turquoise Rm.

Status of Decommissioning Activities at Non-Power Nuclear Facilities

CoChairs: A.E. Sheil, British Nuclear Fuels Plc
Robert Wills, Consumers Energy - Big Rock Point Restoration Projects

1. Management of Decommissioning Programme at SCK-CEN — *L. Noynaert, R. Cornelissen, A. Rahier, R. Van Bael, SCK-CEN (BELGIUM)*
2. A Risk Reduction Exercise at BNFL Sellafield — *P.J. Manson, British Nuclear Fuels plc. (UK)*
3. Remote Dismantling Methodology for the Decommissioning of Windscale Pile 1 — *A. E. Sheil, E. Sharpe, British Nuclear Fuels plc (UK)*
4. Decommissioning of Four German Fuel Cycle Facilities — *H. Rupar, R. Baumann, P. Faber, M. Ruhbaum, H. Schmitt, Siemens AG, KWU (GERMANY)*
5. Status of the AVR Decommissioning Project With Special Regard to the Inspection of the Core Cavity for Residual Fuel — *E. Wahlen, J. Wahl, P. Pohl, Arbeitsgemeinschaft Versuchsreaktor AVR GmbH (GERMANY)*
6. Marcoule UP1 Reprocessing Plant: First Steps Towards Decommissioning — *H. Masson, J. C. Batailles-Lannes, J. P. Mistral, COGEMA; B. Vignau, J. Misraki, P. Geider, CODEM (FRANCE)*
7. Decommissioning the Winfrith Technology Centre - Environmental Restoration With a Purpose — *M. S. Barents, UKAEA (UK)*

1:30 pm Session 37 — Copper Rm.

Global Perspectives (I)

CoChairs: Tommy Hedman, Swedish Nuclear Fuel and Waste Management Co.
Mark Matthews, USDOE - Carlsbad Area Office

1. The Finnish Final Disposal Programme Approaching Site Selection for the Disposal of Spent Fuel — *R. Olander, Posiva Oy (FINLAND)*

2. Formalization of Waste Management Programs in Support of the Chemistry and Metallurgy Research (CMR) Facility Authorization Basis — *R. C. Stupka, LANL; L. P. Stringfield, Sigma Science, Inc. (USA)*
3. NMT-7 Approach to Waste Management at Los Alamos National Laboratory's Chemistry and Metallurgy Research Facility — *E. Derr, R. E. Wieneke, LANL (USA)*
4. WITS-Low Level Waste Data at our Fingertips — *B. Martinez, A. Montoya, LANL; J. Matek, Beta Corporation International (USA)*
5. Hazardous and Mixed Waste Management Challenges at the Los Alamos National Laboratory Plutonium Facility — *J. Carmichael, S. Ramsey, LANL (USA)*
6. Glove Box Vitrification System for TA-55 TRU Waste — *R. Nakaoka, G. Veazey, D. Mullins, C. Smith, LANL; S. Bates, J. Klinger, Bechtel-B&W Idaho Inc./INEEL (USA)*
7. Certifying Transuranic Debris Waste Generated at Technical Area - 55 — *K. Goyal, D. Wulff, A. Montoya, LANL (USA)*
8. Transitioning Metallic Uranium Spent Nuclear Fuel from Wet to Dry Storage — *P. G. Loscoe, USDOE (USA)*
9. Low-Level Waste Management at TA-55 and the Chemistry and Metallurgical Research Facility — *L. A. Trujillo, E. D. McCormick, LANL (USA)*

8:30 am Session 50 — Gila Rm.

Management of Operational and Decommissioning Liquid Utility Waste

CoChairs: Michael Szukala, ABB / Hansa Projekt Anlagentechnik GmbH
Larry C. Oyen, Larry Oyen Consulting

1. Conditioning of Special Waste Material with the FAVORIT Vacuum Drying Facility — *R. Finkbeiner, GNS Gesellschaft für Nuklear-Service mbH (GERMANY)*
2. Waste Removing from Site Disposal "ALFR" and Dismantling of Final Waste Disposal On Site of NPP Rheinsberg — *F. Krause, M. Schönherr, Energiewerke Nord GmbH (GERMANY)*
3. Treatment of Liquid Waste from WWER Plants — *K. Blinn, Siemens AG (GERMANY)*
4. Problem Solving of Evaporator Operation on the Treatment of Radioactive Liquid Waste in Serpong Nuclear Facilities — *Z. Salimin, National Nuclear Energy Agency of Indonesia (INDONESIA)*
5. Operating Experience of Station for LWR Treatment — *G. A. Martoian, S. G. Intsheian, S. G. Tonikian, G. G. Karamian, AMROTS Scientific Productive Inc. (ARMENIA)*
6. Pilot Scale Testing of Inorganic Ion Exchangers for Precoat Applications — *R. Harjula, A. Paajanen, J. Lehto, University of Helsinki; P. Yarnell, Graver Technologies Inc.; E. Tusa, Selion Oy (FINLAND)*

1:30 pm Session 51 — Mohave Rm.

Groundwater Cleanup

CoChairs: Grover Chamberlain, USDOE
Karen Hooker, USDOE-SR

1. Alternate Technical Strategies to Support the Characterization and Management of Groundwater Contamination at the Nevada Test Site — *E.C. Dixon, D. Weber, University of Nevada, Las Vegas (USA)*
2. In Situ DNAPL Remediation Using Six-Phase Heating — *B. Trowbridge, Current Environmental Solutions (USA)*
3. Permeable Treatment Wall Pilot Project at the West Valley Demonstration Project — *H. R. Moore, OH/WVDP; R. E. Steiner II, B. A. Fallon, C. L. Repp, M. R. Hemann, E. W. Helffenstein, WVNS; A. J. Rabideau, University of Buffalo (USA)*
4. Pilot Tests of Evaporators for Cleanup of Contaminated UMTRA Project Ground Water — *R.B. Richardson, Waste Management Technical Services (USA)*

1:30 pm Session 52 — Coconino Rm.

Mixed Waste Regulatory Issues

CoChairs: David Eaton, INEEL-BBWI
Don Rasch, USDOE-Idaho

1. Economic Theory as a Substitute for Cost-Benefit Analysis in Low-Activity Mixed Waste Rule Making — *C.E. Foutes, USEPA; J-C. Dehmel, Sanford Cohen & Associates (USA)*
2. Negotiation of a No-Longer-Contained-In Determination for Environmental Media Contaminated with RCRA Listed Waste - A Practical Approach — *R. Montgomery, Bechtel-B&W Idaho, Inc. / INEEL (USA)*
3. Development of Disposal Path for Non-Incinerable Low-Level Radioactive Waste Contaminated with PCBs: Pursuing, Obtaining and Implementing Regulatory Solutions — *N. J. Lowry, N. S. Roddy, E. W. Schuler, WSRC (USA)*
4. How the New PCB Disposal Regulations Impact the Receipt of PCB-Contaminated Transuranic Wastes at WIPP — *B. Goldstein, SNL; K. Hunter, USDOE (USA)*
5. Mixed Waste Treatment at Envirocare of Utah, Inc. — *T. W. Jackson, Envirocare of Utah, Inc. (USA)*
6. EPA and DOE Cooperative Efforts on Mixed Waste Treatment — *W.R. Seeker, GE Energy and Environmental Research Corporation; F. Chanania, USEPA; D. Eaton, Lockheed Martin Idaho Technology Company; C.C. Lee, USEPA; J. Mohiuddin, C. Cooley, USDOE (USA)*

6. Advantages and Drawbacks of Waste Retrievability — *W.M.G.T. van den Broek, Delft University of Technology (THE NETHERLANDS)*
7. Retrieval in a KBS-3 Type of Repository- Ongoing Work — *S. Pettersson, C. Svemar, SKB; R. Sjoblom, P. Kalbantner, AF-Energikonsult Stockholm AB (SWEDEN)*

THURSDAY AM, MARCH 2, 2000

8:30 am Session 60 — Turquoise Rm.

Innovative Technologies for Low-Level and Intermediary Level Waste Treatment

CoChairs: Borje Torstenfelt, ABB Atom
Bernard Vigreux, Consultant

1. Versatile Cement Solidification of Different Low-and Intermediate Level Radwaste With the MOSS System — *C. Gesser, G. Hedin, H.I. Johansson, B. Torstenfelt, T. Waltersten, ABB Atom (SWEDEN)*
2. MDS: A Proven and Versatile Solvent Mineralization Process — *C. Redonnet, S. Runge, COGEMA; J. P. Moulin, SGN (FRANCE/USA)*
3. Development of Selective Cesium and Strontium Removal System for JAERI Tokai-Mura Site-Laboratory Tests — *R. Harjula, J. Letho, L. Brodkin, University of Helsinki; E. Tusa, Selion Oy, Rajatorpantie; A. Keskinen, Fortum Engineering Oy; T. Mimori, K. Miyajima, H. Tajiri, Japan Atomic Energy Research Institute; H. Mizubayashi, Mitsui Engineering & Shipbuilding Co., Ltd. (FINLAND/JAPAN)*
4. Experience of Test Operation for Removal of Fission Product Nuclides in TRU-Liquid Waste and Concentrated Nitric Acid Using Inorganic Ion-Exchangers — *H. Tajiri, T. Mimori, K. Miyajima, T. Uchikosi, JAERI; H. Mizubayashi, Mitsui Engineering & Shipbuilding Co., Ltd.; E. Tusa, Selion Oy (FINLAND/JAPAN)*
5. In Situ Cleanable HEPA Filter — *D. J. Adamson, T. D. Phillips, WSRC (USA)*
6. Development of Compaction Systems for Radioactive Assorted Waste and HEPA Filters, An Indian Perspective — *A. W. Matkar, P.K. Wattal, A. Ramanujam, Bhabha Atomic Research Centre (INDIA)*

8:30 am Session 61 — Graham Rm.

Challenges in HLW/TRU Safety and Nuclear Materials Accountancy

CoChairs: Chuan Wu, Westinghouse
Kevin Donovan, Westinghouse WID

1. Triple Crown of Safety Excellence at WIPP — *K. S. Donovan, B. M. Cassingham, Westinghouse WID (USA)*
2. Radiological Safety at a TRU Repository — *C. F. Wu, S. B. Jones, R. F. Farrell, Westinghouse WID (USA)*

3. More Than a Waste Repository, WIPP is a National Resource — *J. A. Mewhinney, USDOE; R. Nelson, Jacobs Engineering (USA)*
4. Nuclear Waste Repository Transparency Technology Test Bed Demonstrations at WIPP — *J. D. Betsill, N. Elkins, SNL; C. F. Wu, Westinghouse Waste Isolation Division; J. A. Meywhinney, USDOE; P. Aamodt, LANL (USA)*
5. Lessons Learned from the Determination of Fixed Contamination on Surface Metal — *H. K. Meznarich, R. L. Hill, R. L. Hobart, S. N. Bakhtiar, M. F. Marcus, Fluor Hanford, Inc. (USA)*
6. Conservatism Reduction, A Win-Win Safety and Operating Strategy for Reducing Authorization Basis Cost of Disposal for the Office of River Protection at Hanford — *H. Babad, G. T. Dukelow, ATL International; Y. G. Noorani, J. D. Voice, S. A. Wiegman, USDOE (USA)*
7. USQ Process Improvements: A Strategy for Reducing Cost of Safety Basis Analysis and Response for the Office of River Protection at Hanford — *H. Babad, ATL International; Y. G. Noorani, J. D. Voice, USDOE (USA)*

8:30 am Session 62 — Maricopa Rm.

RH-TRU Waste Planning & Disposition Activities

CoChairs: Michael Connolly, INEEL
Dale McKenney, Waste Management Federal Services of Hanford, Inc.

1. The Carlsbad Area Office National Remote-Handled Transuranic Waste Program Strategic Planning — *M.R. Brown, S. S. Countiss, USDOE; S. A. Lott, J. P. Harvill, Carlsbad Area Office Technical Assistance Contractor (USA)*
2. Oak Ridge TRU/Alpha Low-Level Waste Treatment Project Approach — *B. Roy, Foster Wheeler Environmental Corporation; G. Riner, USDOE (USA)*
3. Remote-Handled Transuranic Waste Status, Activities and Challenges at the Hanford Site — *D. E. McKenney, L. Bounini, Waste Management Federal Services of Hanford, Inc. (USA)*
4. INEEL Remote-Handled Transuranic Waste Inventory, Waste Disposition Plans, and Technology Needs — *T. L. Clements, Jr., C. R. Tyler, and M. E. McIlwain, Bechtel BWXT Idaho, LLC (USA)*
5. Case Study of Strategy for WIPP Certification of Remote-Handled Transuranic Wastes: Battelle Columbus Laboratories — *J.A. Biedscheid, M. Devarakonda, IT Corporation; J.H. Eide Battelle Columbus Laboratories (USA)*
6. Mixed Waste Focus Area Development of Technologies to Characterize Remote-Handled Transuranic — *W. St. Michel, J. Hartwell, J. Cole, E. Reber, K. Liekhus, Bechtel-BWXT Idaho, Inc. / INEEL; N. Ensslin, D. Mayo, R. Villarreal, L. Field, LANL (USA)*
7. Determination of Hydrogen Gas Generation Rates and Effective G-values from Remote-Handled TRU (RH-TRU) Waste — *R. Villarreal, L. Field, L. Bustos, W. Sandoval, K. Hollis, LANL; S. Djordjevic, DJINDECO Consulting (USA)*