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<tr>
<th>Time</th>
<th>Item</th>
<th>Duration</th>
<th>Presenter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:30 AM</td>
<td>Welcome, Introductions</td>
<td>10 min.</td>
<td>Steve Zappe, NMED</td>
</tr>
<tr>
<td>9:40 AM</td>
<td>Findings of the National Academy of Sciences WIPP Committee, “Optimizing the Characterization and Transportation of TRU Waste Destined for WIPP”</td>
<td>35 min.</td>
<td>Susan Wiltshire, NAS</td>
</tr>
<tr>
<td>10:15 AM</td>
<td>Environmental Evaluation Group Update</td>
<td>25 min.</td>
<td>Matthew Silva, EEG</td>
</tr>
<tr>
<td>10:40 AM</td>
<td>Break</td>
<td>10 min.</td>
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<tr>
<td>10:50 AM</td>
<td>NM Radioactive Waste Task Force Update</td>
<td>25 min.</td>
<td>Anne Clark, NM EMNRD</td>
</tr>
<tr>
<td>11:15 AM</td>
<td>NMED RCRA Permit Update (permit mods, audits, compliance, etc.)</td>
<td>30 min</td>
<td>Steve Zappe, Sandra Martin, Charles Lundstrom, NMED</td>
</tr>
<tr>
<td>11:45 AM</td>
<td>Lunch</td>
<td>75 min</td>
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<tr>
<td>1:00 PM</td>
<td>Upcoming workshop on Hanford Waste</td>
<td>15 min.</td>
<td>George Anastas, EEG</td>
</tr>
<tr>
<td>1:15 PM</td>
<td>Double vs. single containment concerns for Type B containers</td>
<td>15 min.</td>
<td>James Channell, EEG</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>CBFO Update, including but not limited to:</td>
<td>80 min</td>
<td>CBFO</td>
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<tr>
<td></td>
<td>• Recent structural reorganization of CBFO</td>
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<td>• Management changes at CBFO and WTS</td>
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<td>• Legal interpretation of Public Law 108-137, Section 311</td>
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<td>• FY 04 budget</td>
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<td>• Status of EPA recertification</td>
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<td>• Status of RH TRU program (both EPA and NMED)</td>
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<td>• Current audit schedule and plans</td>
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<td></td>
<td>• Discussion of Small Quantity Sites initiative – “Basis for Interim Operations”</td>
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<tr>
<td>2:50 PM</td>
<td>Action Item Commitments/Closeout</td>
<td>10 min.</td>
<td>Steve Zappe, NMED</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Adjourn</td>
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# 85th WIPP QUARTERLY REVIEW MEETING
January 15, 2004

New Mexico Environment Department, Host  
NMED Hazardous Waste Bureau, Conference Room A  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Phone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roger A. Nelson</td>
<td>CBFO/DCE</td>
<td>505-234-7806</td>
<td><a href="mailto:roger.nelson@wipp.wus">roger.nelson@wipp.wus</a></td>
</tr>
<tr>
<td>Matthew Silva</td>
<td>GEC</td>
<td>505-828-1003</td>
<td><a href="mailto:msiha@eeg.org">msiha@eeg.org</a></td>
</tr>
<tr>
<td>Lindsay Lovejoy</td>
<td>NM AM Gen CFF</td>
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<td>Gary Abbotson</td>
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<tr>
<td>Barbara Pastine</td>
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<td>Susan Wiltshire</td>
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<td>Earl Potter</td>
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<td>Jim Chunnell</td>
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<tr>
<td>Ben Walker</td>
<td>EEG</td>
<td>505-885-9677</td>
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<td>Tim Burns</td>
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<td>John Flock</td>
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<tr>
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</tr>
</tbody>
</table>
NAS

Twelve committee members responsible for report.

Given within Observations - WIPP is open reporting, meeting, and entry. Initial contribution to cleanup. First at a kind facility, initial conservative approach followed by modifying regulatory doses.

Chances to change plan as expected.

Findings:

1. DOE has not presented a systematically analysis to support potential changes.
2. Use increasing experience to improve program.
3. Should propose more flexible waste char process taking into account different properties.
4. Request authorization for additional AK methods.
5. Transportation communication.
6. Improve communication w/ stakeholders.

Briefed sponsors on Monday 4/22 in advance of publication. Also some staff on hill. We met with Jessie, Janes, & Paul Detwiler.

Did not include RPR in examples for #1 because DOE already identified 3 other examples that was enough.

EEB

Handout

Matthew Silver - Meet with Hanford engineers on tank waste. Also 6:45 to 7:45.

Janes, Lloyd Piper, Paul Detwiler.

Submitted comment on draft CRT to DOE 4/21. Also

MPF as part of Draft EIS 5/5/03.

EEB-89 - rationale for maintaining double containment.

DOE Response: Thank NAS for their work.

DoE will connect the dots. Agree with all findings. Believe they have made a compelling case that convinced congress to
IMED Handout

SOE * Requested copy of my presentation to OAB
John Flack

NMEMWAR Handout

Ann Clark Questions about alternate route thru AL surround.

EG TRU Tank week workshop - handout
George Anshen technical issues - try to get information
on what's in the tanks.

DOE participation is uncertain at this time,
but even if they don't attend (Lee Ols, Jesse Roberson),
it could still go forward.

Jim Channel Double containment - been around for 30 yrs

Required for PRA in excess of 20G. NRC eliminated
apparently to be consistent w/ international standards
(which never had been required). NRC acknowledged double
containment would be safe, but argued it is safe enough
as it is.

EEG-S9 analyzed double containment deletion. It
is primarily a WIPP issue. Conclude less radiation dose
during routine operations (shielding effect), some weight
penalty, but existing single designs show little benefit.

Phil Gregory rebutted - TP111 designed for large
boxes, to avoid exposure to workers repackaging boxes
into drums. 20,000 boxes. TP111-9 tractor/trailer pushing
80 Klbs, requiring overweight permit even without waste
CBFO  Handout
Roger

Paul 60k6 to EM3
In's Troy - Acting COO at EM2.

Cheryl

3/11 RH, Container mtg, Paul
4-10, Panel closure redesign

WF5 Small Quantity Sites/CCP Basis for interim
Phil Googy operations - handout.

Used by mobile characterization units - standard
process for Safety Basis, Setup @ six sites
today - didn't use B10, but it is based on
experience gained from those 6 sites.

Additional sites - any of the small sites,
RFETS x INEL are excluded by existing contacts.

Joni Copy at B10 to Joni

George Request DOE to arrange to monitor open sites
and dose associated w/ chern, packaging, trans.

SBP Provide presentation to all

BP Email presentation

Next meeting Tues April 20 Carlstedt
A new report from the National Academies recommends possible improvements to the U.S. Department of Energy's (DOE's) program for characterizing radioactive waste bound for the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico. In full operation since March 1999, WIPP is DOE's geologic repository for the final disposal of transuranic (TRU) waste generated by defense-related activities at 27 sites around the country. WIPP currently accepts only “contact-handled” transuranic waste—waste that can be handled directly by workers—comprised mainly of plutonium-contaminated protective clothing, gloves, rags, laboratory instruments, and other equipment.

In accordance with federal and New Mexico laws and regulations, each DOE site must characterize its waste before it is shipped to WIPP. According to DOE, waste characterization is one of the most costly and time-consuming parts of managing and disposing of transuranic waste, costing taxpayers an estimated $3.1 billion dollars for DOE's total inventory of transuranic waste (about 110,000 m$^3$). The purpose of characterization is to ensure safe handling, transportation, and disposal of waste at WIPP. The process involves performing a suite of activities prescribed by regulators to determine specified radiological, physical, and chemical parameters of the waste and to verify that no prohibited items are shipped to WIPP.

PATHWAY TO CHANGE

After four years of shipping and disposing waste at WIPP, DOE has identified several challenges in waste characterization (see Box 1, p. 2). As DOE has gained operational experience at WIPP, it has submitted several requests to modify the characterization program to WIPP's regulators. However, these changes have caused controversy among the public concerned that efforts to make the process more efficient could compromise safety. In order to make such changes, DOE should provide a technically defensible approach for supporting permit modification requests to regulators and communicating with the public, which is the report's main recommendation.

The report proposes a structured and quantitative analytical framework that assesses whether the characterization information collected has value for decision making. In the context of this report, the value of characterization information is determined by how much the information contributes to waste handling, transportation, or disposal decisions. If the information is used to make decisions, then it has an impact (e.g., on reducing risks, uncertainties, costs, or delays), and thus it has value. On the other hand, if the characterization information is not used in current or future decisions, then it has no impact, and therefore it has no value.

To illustrate how the proposed structured and quantitative analytical framework could be applied to DOE's program, the report provides illustrative elements of its application to three of the most expensive waste characterization activities: headspace gas sampling and analysis; homogeneous waste sampling and analysis; and visual examination. These activities could be reevaluated through the proposed analytical framework.
to determine their value and impact, and to propose changes to the characterization program if warranted.

In addition to the main recommendation, the following recommendations could increase the program's technical soundness, efficiency, cost effectiveness, and safety to workers and the public:

- DOE should use its experience over the last four years and advances in technology to improve the efficiency of the current transuranic waste characterization program.
- DOE should propose to its regulators a flexible waste characterization program that can take into account the properties of different waste streams, allowing more efficient and effective waste characterization operations.
- DOE should expand use of existing waste information for characterization purposes.
- DOE should proactively coordinate with regional groups on proposed waste characterization changes that may affect transportation.
- DOE should publish clearly written analyses of proposed changes to the characterization program to document that these changes do not adversely affect the protection of worker and public health and/or the environment.

---

**Box 1. Challenges for DOE in Waste Characterization**

**High characterization costs and variability in estimates.** On average, characterizing transuranic waste costs $3,900 per drum. There is also variability in cost estimates among sites due to differences in waste type and volume, characterization procedures, and methods of reporting costs.

**Multiple generator sites.** Each of the 27 DOE sites generating transuranic waste has slightly different waste characterization procedures.

**Wide variety of waste streams.** DOE identified 569 different types of transuranic waste, varying from heterogeneous debris from deactivation and decommissioning to homogeneous sludge from waste processing.

**Wide variation in knowledge of the nature of the waste.** Transuranic waste is produced at different sites and times using various processes. The different knowledge about the waste (also called Acceptable Knowledge) impacts characterization activities.

**Programmatic uncertainties.** The amount and characteristics of future waste may be different from current estimates depending on programmatic changes. Technological advances might also create opportunities to improve waste characterization, but the impact is difficult to assess.
Statement of Task

- The objectives of this study were to:
  1. provide a review of the Department of Energy's program for characterization and characterization-related transportation issues for transuranic waste; and
  2. recommend improvements to increase the program's technical soundness, efficiency, cost-effectiveness, and safety to workers and the public.

- The study will address programmatic, policy, and societal impacts of changes in characterization requirements.
- The study will not address requirements for the characterization of remote-handled transuranic waste or non-technical transportation requirements.
Committee on optimizing the characterization and transportation of transuranic waste destined for the Waste Isolation Pilot Plant

- 12 committee members were chosen for their expertise in:
  - Actinide/physical chemistry
  - Hazardous and radioactive waste management regulations
  - Health physics
  - History of characterization program at WIPP
  - Public policy/Social sciences
  - Radioactive waste transportation regulations
  - Risk/benefit assessment
  - Technical aspects of waste characterization

- 9 experts under the supervision of an independent review monitor conducted a review of the report
- Responsibility for final content rests with the authoring committee and the National Research Council

Observations

- That WIPP is open and operating is a significant achievement
  - DOE is making a significant contribution to the clean up of the weapons complex
  - DOE’s radiation protection program is successful

- WIPP has followed a regulatory path typical of many first-of-a-kind facilities:
  - Initial conservative approach to meeting laws and regulations
  - Modification of regulatory documents based on better understanding gained through operational experience and analyses
Bottom Line

- After four years of WIPP operations, changes to the characterization program are expected and are part of the normal learning process for a first-of-a-kind facility.
- A regulatory process exists under which changes can be made to the waste characterization program.
- A structured and quantitative analysis is needed to support requests for changes to the regulator and to communicate with the public.

Findings and Recommendations

- The committee first recommends a structured and quantitative analysis of the value of characterization activities on which DOE can base decisions about changes and improve communication.
  - Committee provides 3 illustrative examples of a structured and quantitative analysis to support the proposed changes.
- The committee provides 5 additional recommendations for improving operations whatever activities are conducted.
Finding 1: DOE has not presented a systematic analysis to support potential changes to the regulators or to the public. Although DOE has performed analyses of many aspects of operations related to WIPP performance, including transportation, the committee could find no studies that explicitly, systematically, and quantitatively link its waste characterization program to risks to the public, workers, or the environment.

Recommendation 1: DOE should use a systematic and quantitative approach to determine the value of the information currently obtained by its waste characterization activities and the impact of changes to them. This approach should also be used to support permit modification requests and communicate with the public.

Finding and Recommendation 1 (cont.)

Three characterization activities appear to be candidates for the complete application of the analytical framework proposed by the committee:

1. headspace gas sampling and analysis,
2. homogeneous waste sampling and analysis, and
3. visual examination to confirm radiography results
Finding 2: DOE now has four years of operational experience with the National Transuranic Waste Management program that can be used to improve waste characterization activities.

Recommendation 2: DOE should use its increasing experience base and advances in technology to improve the current transuranic waste characterization program.
• **Finding 3:** Current characterization activities are applied generically to all waste types and, with few exceptions, are not tailored to particular waste streams.

• **Recommendation 3:** DOE should propose to its regulators a more flexible waste characterization program that can take into account the properties of different waste streams, allowing more efficient and effective waste characterization operations.

• **Finding 4:** DOE is currently using only one of the four methods approved by EPA to qualify information as Acceptable Knowledge, namely, confirmation by measurement. Use of the other methods could reduce waste handling and costs, increase the efficiency of characterization activities, and extend the use of Acceptable Knowledge for waste generated in the future.

• **Recommendation 4:** DOE should request authorization from its regulators to use all four methods allowed by EPA for qualifying waste information to be used as Acceptable Knowledge.
• **Finding 5:** Transportation agreements for WIPP shipments have been fashioned over many years of negotiation between DOE and the corridor states. Any changes in the WIPP characterization program could be viewed as undermining these institutional agreements.

• **Recommendation 5:** In addition to working with its regulators, DOE should ensure that corridor states are kept informed of negotiations for changes to the characterization program. Specifically, DOE should communicate effectively with the Western Governors Association, the Southern States Energy Board, and similar groups representing corridor states. DOE should analyze, publish, and present to corridor states' representatives any impact of proposed changes on transportation safety.

• **Finding 6:** Stakeholders have many concerns about WIPP program-related operations.

• **Recommendation 6:** DOE should publish clearly written analyses of proposed changes to the characterization program to document that these changes do not adversely affect the protection of worker and public health and/or of the environment. DOE should also provide public access to information about WIPP and its operations, including the WIPP Waste Information System, and communicate interactively with state officials, tribes, public interest groups, and scientific oversight organizations. The proposed analytical framework could provide a technically defensible approach for supporting changes to the characterization program.
85th QUARTERLY MEETING

US Department of Energy
Environmental Evaluation Group
NM Energy, Minerals, and Natural Resources
NM Environment Department
NM Attorney General

Matthew Silva, Director
Environmental Evaluation Group
http://www.eeg.org

January 15, 2004
Santa Fe, NM

Reviews

➢ 11/21 Draft Compliance Recertification Application (CRA) - submitted partial comments to CBFO

➢ 12/22 EEG Interim Comments on "Effects of Supercompacted Waste and Heterogeneous Waste Emplacement on Repository Performance" (Hansen et al. 2003)

Meetings, Presentations

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<th>Date</th>
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<th>Topic</th>
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<tbody>
<tr>
<td>11/12</td>
<td></td>
<td>Silva</td>
<td>Technical discussion on high waste at Hanford, Richland, WA</td>
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<tr>
<td>11/17</td>
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<td>Allen</td>
<td>DOE/EPA Technical Exchange with EPA Waste PA, Carlsbad, NM</td>
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<tr>
<td>12/22</td>
<td></td>
<td>Silva</td>
<td>Meeting with BOP: Gen. Sub to discuss EEG capabilities relating to WIPP shipment, Santa Fe</td>
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<tr>
<td>1/15</td>
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<td>Silva</td>
<td>Outreach WTS shipment map to Gallup, NM</td>
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Audits

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<tr>
<td>1/12-1/16</td>
<td>Hanford Certification Audit, A-04-06, Carlsbad, NM</td>
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<td>12/8-12/11</td>
<td>SNL Nondestructive Inspection, QA Program, Carlsbad, NM</td>
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<tr>
<td>12/12-12/15</td>
<td>DOE Audit of CBFO, SNL, CCP, &amp; Sealed Sources Peer Review, Carlsbad, NM</td>
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Status of EEG Requests

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<th>Subject</th>
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<tr>
<td>11/12</td>
<td>M Silva, DOE</td>
<td>L Allen</td>
<td>Request for TRUPACT-111 SARP waiting on DOE response</td>
<td></td>
</tr>
<tr>
<td>12/12</td>
<td>M Silva</td>
<td>DOE</td>
<td>DOE Technical Interim Comments on PA WIPP waste WIPP, waiting on DOE response</td>
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EEG-88

Application of Beryllium-7 and Lead-210 Concentration Measurements to Monitoring the Validity of Effluent Air Sampling at the Waste Isolation Pilot Plant

by

Donald H Gray

December 2003

Since 1995 EEG has questioned whether or not the water inflow problem in the exhaust shaft at WIPP hinders collecting a representative sample. EEG-88 discusses how recent 7Be and 210Pb analyses are helping to answer this question.

Available at: www.eeg.org

EEG-89

A rationale for maintaining the double containment requirement for plutonium shipments

by

James K Channell and George Anastas

December 2003

The NRC Commissioners approved the final rule on 10 CFR 71 on November 19, 2003. The final rule deleted the double containment requirement. EEG-89 is an update and expansion of EEG's July 26, 2002 comments to the NRC.

Read why EEG's analysis continues to show that the deletion of the double containment provision for shipments of plutonium in excess of 20 Curies is not in the public interest.

Available to read/download at: www.eeg.org

EEG-90

EEG Operational Radiation Surveillance of the WIPP Project during 2002

by

Donald H Gray and Sally C Bellard

December 2003

Results of EEG's measurements of 241Am, 239/240Pu, 137Cs, and 90Sr in air and waste samples collected at and around the WIPP site during 2002 are not different from the corresponding baseline measurements. Therefore, EEG concludes that operations at the WIPP during 2002 did not result in measurable releases of radionuclides to the environment.

Available to read/download at: www.eeg.org

EEG Technical Workshop

Transuranic Tank Waste

March 16-17, 2004

Glaesner Training Center

Albuquerque, NM

Issues relating to the contents of those tanks located at Hanford and INEEL that contain transuranic waste and that the Department of Energy believes meet the requirements for disposal at the Waste Isolation Pilot Plant.

Space is limited, so register early.

Check our website for current information:

- Tentative Agenda
- Printable Registration Form
- Accommodations Listing

Available to read/download at: www.eeg.org
EEG Meets first NTS Shipment
January 8, 2004

What’s New at www.eeg.org

Read/Download EEG’s Newest Reports:
- EEG-88
- EEG-89
- EEG-90

Tansuranic Tank Waste Workshop:
- Tentative Agenda
- Complete and Print Registration Form
- Listing of Accommodations within one mile of Glaesner Training Center
State of New Mexico
Radioactive Waste Consultation Task Force Update

85th WIPP Quarterly Meeting, January 15, 2004

Anne deLain W. Clark
NM Energy, Minerals and Natural Resources Department
Santa Fe, New Mexico 87505
(505) 660-9912

Task Force
❖ 2 WIPP Working Group meetings
❖ Waiting on the update to the CVSA/DOE Cooperative Agreement Interim Report to schedule the next Task Force Meeting – still aiming for March 2004
❖ Still discussing funding issues for the TAG with DOE.
❖ Continued development work on the Rail PIG. DOE asking all four regional groups to work together and to start from current regulatory requirements, justifying any differences from those to state expectations.

Office of Emergency Management
❖ Ordered $111,915 worth of PPE and detection equipment through the Homeland Defense Equipment Reuse Program for distribution to state & local response agencies.
❖ WIPP Tour for members of 64th Civil Support Team, NM National Guard, and meeting with Carlsbad RAP Team.
❖ Hazmat Awareness classes held: NM Law Enforcement Academy Basic class, Los Alamos County employees
❖ Initialized discussions with the Santa Fe Community College and the NM Association of Community Colleges on offering Hazmat and WMD training through community colleges.
❖ Updated and printed 1000 copies of WIPP Public Information Pamphlet.

Office of Emergency Mgmt (cont.)
❖ Attended “Homeland Security & Combating Terrorism” Conference at Isleta Pueblo, and helped run the Hazmat Rodeo event.
❖ Finalized review of draft emergency plan, signing of MOUs, and other coordination’s for proposed National Enrichment Facility near Eunice, NM.
❖ Taught revised MERRTT course for NMSP Emergency Response Officers.

State Police Division
❖ Taught Critical Incident Management Class to Law Enforcement officers in Santa Fe, included radiological and nuclear training.
❖ Coordinated Incident Command Training for 54 State Police Supervisors and Officers.
❖ Coordinated training for a Hazardous Materials Operations course for 30 State Police Supervisors.
❖ Taught a Weapons of Mass Destruction course to thirty (30) State Police Supervisors. Training included response and mitigation of Radiological and Nuclear events.
❖ Coordinated MERRTT Training for 24 State Police Officers.
❖ Arranged for three (3) State Police dispatchers to receive training on the ACU-1000 communications trailer. Training will enhance State Police communication with other Law Enforcement agencies when dealing with a critical incident.
6 Motor Transportation Division
- En-route inspections (both radiological & mechanical, CVSA Level VI) conducted at the Raton Port of Entry and the Loving Inspection site for all WIPP shipments entering the State of New Mexico during the quarter.
  - HNFD - 14
  - RFETS - 115
  - SRS - 58
- Federal Motor Carrier Safety Regulations violations on 4 WIPP shipments: 3 vehicle violations and 1 driver violation. Two vehicles were placed Out-of-Service.
- Taught CVSA Basic Level VI Inspection Class at Kansas Highway Patrol Academy, Salina, Kansas.

7 Motor Transportation Div. (cont.)
- Taught CVSA Level VI Refresher Inspection course in Flagstaff, Arizona (attended by Arizona State Police and ADOT personnel) and Gallup Port-of-Entry
- Outfitted an 18 foot trailer (acquired from the MCSAP Program) with interior light, cabinets, generator and other necessary equipment to be used as a Special Operations Resources Trailer for HazMat incidence response.

8 Department of Health
- Discussed status of emergency medical preparedness, training opportunities, response equipment with the following:
  - Cibola County Emergency Manager
  - Grants City Fire Chief
  - Eastern New Mexico Medical Center Nurse in charge of Emergency Preparedness Training
  - Artesia General Hospital Director of Safety
  - Carlsbad Fire Chief
  - Lea Regional Medical Center Critical Care Director
  - Lovington Fire Department Assistant Fire Chief
  - Nor-Lea General Hospital Director of Nursing
  - Region III EMS, Inc. Trauma Nurse Coordinator
  - Guadalupe Hospital Safety Director

9 Department of Health (cont.)
- Provided calibrated Geiger counters to:
  - Eastern New Mexico Medical Center in Roswell
  - Artesia General Hospital
  - Lea Regional Medical Center in Hobbs
  - Lovington Fire Department
  - Guadalupe Hospital in Santa Rosa
- Conducted “How to put the suit on” and “Hands-on radiation” workshops (proper donning and doffing of PPE response attire, how to properly use a Ludlum Geiger Counter, and demonstrated proper set-up of decontamination shower) in:
  - Tucumcari, NM (approximately 35 people trained from the Fire/EMS and Hospital)
  - Grants, NM (Approximately 40 people trained from the Fire/EMS and Hospital)
- Conducted the “Hospital Response to Hazardous Materials Course” at Memorial Medical Center in Las Cruces, New Mexico.

10 State Fire Marshal
(unchanged from July report)
- Traveling WIPP route, providing information on JPA and a person to person relationship.
- The following local governing bodies are funded through JPAs:
  - City of Artesia $7,000: support regional response haz/mat team
  - City of Alamogordo $7,000: support regional response haz/mat team
  - City of Carlsbad $7,000: support regional response haz/mat team
  - City of Gallup $7,000: support regional response haz/mat team
  - City of Hobbs $7,000: support regional response haz/mat team
  - City of Kirtland $7,000: support regional response haz/mat team
  - City of Roswell $7,000: support regional response haz/mat team
  - City of Santa Fe $7,000: support regional response haz/mat team
City or Vaughn: $5,000 support regional response bus/mst team
Chavez County: $11,000 support first responder training
Cibola County: $10,000 support first responder training
Colfax County: $7,000 support first responder training
Eddy County: $15,000 support first responder training
McKinley County: $15,000 support first responder training
San Miguel County: $7,000 support first responder training
Santa Fe County: $15,000 support first responder training
Torrance County: $7,000 support first responder training
Total Funding: $138,000

11 NMED Radiation Control Bureau

- Added Fourteen Motor Transportation Division WIPP inspectors to Radiation Control Bureau's WIPP personnel dosimetry program
- Working with Office Emergency Management WIPP coordinator to develop an informational radiation response "reference card" to be issued to entities provided with a Ludlum radiation instrument
- Presentation to College of Santa Fe (Albuquerque campus) graduate class on the State of New Mexico WIPP Transportation Emergency Preparedness Program. 30 students in attendance. Topics of discussion:
  - Transportation policy implementation
  - National WIPP Routes
  - New Mexico designated WIPP routes
  - WGA's PIG program
  - NM's challenges
  - NM Transportation Work Plan
  - Transportation monitoring
  - Emergency response planning
  - Equipment and supplies
  - NM Vulnerabilities at Ports-of-Entry and Homeland Security initiatives
  - Raton Port-of-Entry monitoring facts

12 NMED Radiation Control Bureau (cont.)

- All Ludlum 14C's with probes 44-9 and 44-38 calibrated and instrumentation re-issued to emergency response and hospital personnel operating on the WIPP route.
- Homeland security presentation to Departments of Public Safety and Economic Development on the efforts of the WIPP program to obtain federal funding for installation of portal monitors at Gallup, San Jon, Anthony and Lordsburg ports-of-entry.
- Successfully installed first operational radiation monitoring site at the Raton Port-of-Entry facility. To date 79,300 shipments have been surveyed.
- Grant dollars have been awarded to RCB for two new and more sophisticated transportation monitors for the Gallup and Anthony Ports-of-Entry. These two ports have approximately 1.7 million motor carrier vehicles going through the ports, on an annual basis.
Western States’ Expectations for the Shipment of TRU Waste by Rail

Operational Considerations

A. Overarching expectation:

1. DOE must ensure that rail shipments follow standards, procedures, and protocols comparable to those used for shipments of transuranic waste by truck.

2. Applicable portions of the Rail Guide shall be incorporated in DOE-CBFO contracts with rail carriers and in DOE’s transportation plan.

B. Policy expectation:

1. The procedures in the Rail Guide apply to all shipments by rail of transportation packages loaded with transuranic waste and managed by CBFO, including intersite shipments.

I. Qualified Crews, Enhanced Equipment & Enhanced Carrier Compliance

A. Overarching expectations:

1. WIPP cars shall be placed as close to the front of the train as possible.

2. Railroad equipment (engines, cask and buffer cars) used to transport transuranic waste shall be of premium quality and shall be strictly maintained.

3. The carrier shall ensure that only qualified crews operate trains transporting TRU waste.

B. Policy expectations:

1. The WGA, the State of New Mexico, the SSEB, and other regional organizations and tribes shall be included in the review of requests for proposals for rail service prior to issuance of the requests and in the development of contract requirements for the carrier selected.

2. All waste transported to WIPP or intersite shall be transported in Type B containers certified by the NRC.
3. The carrier shall ensure that operations center personnel are appropriately trained in the procedures and protocols for WIPP shipments.

4. FRA and DOE shall implement a program similar to the SCOP for WIPP shipments to ensure inspections are conducted and equipment is adequately maintained.

5. The rail carrier shall designate all transuranic waste trains to that class of trains the rail carrier assigns its highest priority.

6. Cask cars and buffer cars shall be dedicated cars used only for WIPP shipments.

C. Operational expectations:

1. DOE–CBFO shall include those requirements described in the WGA’s document entitled “Model Safety Elements in the WIPP Rail Transportation Contract” in its rail transportation services contract, in DOE’s transportation plan, and in related documents.

2. The cars shall be equipped with shelf couplers.

3. All trains shall use two-way end of train braking devices that comply with the regulatory requirements for design, performance, operational use, inspection and testing.

4. Components of the SCOP implemented for WIPP shipments may include:

   a. FRA and/or the Lead States shall conduct reviews prior to the first shipment, and at least annually for subsequent shipments to ensure that train crews are properly certified, trained, and experienced in operating over the designated routes.

   b. All locomotive engineers shall meet the Locomotive Engineer Certification requirements.

   c. All crew members shall have the appropriate hazardous materials training as required by 49 CFR 172.700.

   d. FRA and/or the Lead States shall review the rail carriers’ dispatching procedures at the carriers’ dispatching centers for the

Western States’ Expectations  Page 2  December 16, 2003
first shipment, and shall periodically review the procedures for subsequent shipments.

e. FRA and/or the Lead States shall review the rail carriers' inspection and management practices to identify any program weaknesses that could affect public safety and shall ensure that corrective action is taken when a weakness is identified.

f. FRA and/or the Lead States shall review the rail carriers' latest inspection and maintenance reports for bridges.

II. Inspections of Track and Equipment

A. Overarching expectations:

1. DOE and the Carrier shall ensure that all WIPP rail cars are in compliance with all applicable requirements of the Federal Railroad Administration and the Association of American Railroads.

2. DOE shall ensure that all cask cars and buffer cars are inspected prior to their point-of-origin departure. Cars not meeting inspection standards shall be repaired prior to being placed in service.

3. DOE and the rail carrier shall develop and implement a preventive maintenance inspection schedule to ensure that all cask cars and buffer cars used for WIPP shipments are maintained to the highest standards.

4. The FRA and/or states may inspect all transuranic waste shipments by rail prior to their point of origin departure.

5. All route states may conduct in-route inspections at normal train stops, such as crew change points, refueling locations and other scheduled stopping locations.

6. The FRA and/or states may inspect the track, defective bearing detectors (hot boxes) and the signal system along the designated routes in advance of the first shipment.

B. Policy expectations:

1. Carriers shall provide access to rail yards for FRA inspectors, FRA certified state inspectors, and state hazardous materials inspectors for in-transit inspections.
v. If the unit cannot be easily repaired or replaced (within 24-hours), the shipment will be dispatched with prior notification to the affected states. "Back-up procedures when TRANSCOM is Not Working" outlined in the Guide shall be followed.

5. Carriers shall work with DOE and the Western Corridor States to develop procedures to utilize their own tracking and communication capabilities to complement the TRANSCOM system.

6. Shipments of transuranic waste shall be restricted from traveling on certain identified holidays.

7. States and tribes may identify specific local holidays and/or events which should be avoided.

VI. Medical Preparedness

A. Overarching expectation:

1. DOE will make provisions for and cover the expense of training for hospital and emergency medical personnel along WIPP transportation routes, similar to that which is currently provided for truck shipments.

VII. Memoranda of Understanding

A. Overarching expectation:

1. Specific memoranda of understanding will be developed between the states, tribes and the carriers, providing for access to railroad property by state and local responders, clearly delineating private and public responsibilities and defining the approach to be taken in the event of a rail incident.

B. Policy expectations:

1. The memoranda of understanding will specify that the incident command system shall be used and that the Incident Commander shall be a state, tribal or local official as described in the emergency response plan for the jurisdiction where the incident occurs.

2. If a route selected involves more than one railroad company, a separate memorandum shall be developed for each company.
C. Operational expectation:

1. For areas where the track is not readily accessible by motor vehicle or for periods when weather conditions make access difficult for first responders, the memoranda shall also specify the methods carriers will use to transport responders to the scene of an incident. The memorandum shall specify that emergency responders will be provided with a rail system map with the nearest road access points, GPS coordinates if available, and the rail operations center telephone numbers.

VIII. Emergency Response Plans & Procedures

A. Overarching expectations:

1. The carrier will provide immediate notification of an incident to DOE, which will then provide that information to the states and local responders.

2. Response actions by railroads must be in conformance with state plans and procedures.

B. Policy expectations:

1. The carrier is responsible for providing emergency response assistance. The carrier has primary responsibility for package and transporter recovery, cleanup, and site restoration. DOE shall ensure that carriers have specific written procedures for providing recovery and cleanup.

2. For WIPP incidents, the establishment of the Incident Command System shall be in accordance with the plan, protocols, and procedures of the state, tribe, or local jurisdiction. In all cases, the Incident Commander shall be a state, tribal or local official as described in the emergency response plan for the jurisdiction where the incident occurs.

C. Operational expectations:

1. In the event of an incident, the WIPP CMR shall notify the appropriate local law enforcement authority, the state 24-hour contact number, and DOE Albuquerque Operations Office.

2. Lifting lugs and welding rods for attaching the lugs to the TRUPACT–II shall be carried on each rail car.
IX. Emergency Response Equipment

A. Overarching expectation:

1. DOE will continue to assist the states in acquiring and maintaining adequate equipment for emergency responders along all WIPP routes to respond to a WIPP shipment incident.

X. Training and Exercises

A. Overarching expectations:

1. DOE–CBFO shall continue to offer training to the states through the State and Tribal Education program.

2. DOE–CBFO shall expand the WIPPTREX and WIPPTRAX programs to provide additional exercises for rail shipments.

B. Policy expectations:

1. DOE and its rail carrier shall support at least one rail WIPPTREX each year, and both shall participate in the exercises.

2. Rail exercises shall also be available for the New Mexico WIPPTREAX program.

C. Operational expectations

1. DOE shall fund training on workplace safety in the railroad work environment for State radiological inspectors who are not FRA State Participation Program inspectors.

XI. Public Information and Participation

A. Overarching expectations:

1. DOE will assist the states in providing public information along shipping corridors that explains the safety measures in place and the actual risk of the shipments.

2. In the event of an incident or accident involving a WIPP shipment, the states, DOE and the rail company will be proactive in providing accurate information on the incident to the public. This information will be
coordinated between the states, DOE and the rail company prior to release.

XII. Rail Routing of WIPP Shipments

A. Overarching expectation:
   1. A single designated route shall be selected from each shipping point to the WIPP site or the receiving site for inter-site shipments. Selection of the route will be based primarily on safety and security. The route selection will be coordinated with the affected states and tribes.

B. Policy expectations:
   1. If the identified route is not acceptable to the states, DOE-CBFO shall work with the carrier to identify a route that is acceptable.
   2. There shall be no deviations from the designated routes except in emergency situations. No deviation shall be allowed without prior approval from DOE-CBFO and the affected states.

C. Operational expectations:
   1. Track classification shall be considered when selecting routes for shipments. The route selection shall ensure that the highest rated track is used.
   2. Track not under central signal control, sometimes referred to as “dark track,” shall be avoided wherever practical.
   3. The distance to destination, grade, number and type of curves, high/ wide load restrictions, bridges and tunnels shall be considered when selecting routes.
   4. Provided that the safety considerations discussed above are met, rail routes shall closely parallel existing highway routes where possible.
   5. WIPP shipments shall only be routed through State and tribal jurisdictions where DOE has provided technical assistance and funds for the purpose of training public safety officials and other emergency responders as provided under Section 16c of the WIPP Land Withdrawal Act. This includes the provision of training for public safety officials and other emergency responders, implementation of the Regional Medical
Preparedness Action Plan, implementation of public information programs and acquisition of equipment.

6. WIPP shipments should avoid classification yards as much as possible.

7. WIPP cars shall not be:
   i. Humped.
   ii. Cut off while in motion
   iii. Coupled into with more force than is necessary to complete the coupling.
   iv. Struck by any car moving of its own momentum.
   v. Each WIPP car shall be labeled “Do not hump or cut off car while in motion.”

8. DOE will specify designated routes in its rail transportation services contracts, its transportation plan and related documents and require carriers to utilize only these specifically designated routes. The contracts shall clearly articulate the conditions under which route deviations may occur and the duties and responsibilities of the carrier and DOE in the event of a required deviation.
1. Ongoing Permitting Process

- Class 1 modifications
  - Received notice from Permittees on January 13, 2004 to change the CBFO manager name

- Remote-Handled TRU Waste Class 3 modification request
  - No further agency action taken pending review of revised modification in light of P.L. 108-137 Section 311
  - NOD will be issued

- Change in operational control Class 1* modification request
  - No further agency action taken since last meeting

- Electronic Data Management Class 3 modification
  - Received request to withdraw modification on January 14, 2004

- Closure Plan Amendment (Design Change) Class 3 modification request
  - NMED will coordinate with EPA ORIA on review of panel closure design

- Construction and Use of Hazardous Waste Disposal Units Class 3 modification request
  - No further agency action taken since last meeting

- Revised LANL Sealed Sources Class 2 modification request
  - Engaged in discussions with Permittees to address deficiencies in original modification that was denied on September 11, 2003
  - Received revised modification request on November 14, 2003
  - Public meetings held in Carlsbad (December 2) and Santa Fe (December 4, 2003)
  - Public comment period ends on January 15, 2004

- Agency-initiated Modification
  - Limits waste eligible for disposal at WIPP to the inventory that was identified when the permit was originally issued
    - Public notice issued November 26, 2003
    - Public comment period ends on January 30, 2004

- Two-item Class 2 modification request
  - Requests for packaging-specific drum age criteria for new approved waste containers and allowing the use of either track or non-track mounted conveyance cars
    - Received request on January 8, 2004
    - Public comment period ends on March 12, 2004
• Container Management Improvements Class 3 modification request
  - Received request on January 8, 2004
  - Public meetings scheduled in Carlsbad (February 17) and Santa Fe (February 19, 2004)
  - Public comment period ends on March 12, 2004

• Waste Analysis Plan and Monitoring Revisions Implementing P.L. 108-137 Section 311
  Class 3 modification request
  - Both chambers of Congress passed H.R. 2754 on November 20, 2003
  - President signed bill into law (P.L. 108-137) on December 1, 2003
  - NMED management met with DOE to discuss impact of P.L. 108-137 on the WIPP waste analysis plan on December 10, 2003
  - Received modification request on January 12, 2004
  - Public comment period ends on March 15, 2004

• Other reports/notifications received
  - Weekly summary of actions pending before NMED, starting October 16, 2003
  - Report of manifest discrepancies, two CCP shipments from SRS, notification dated November 12, 2003
  - Annual waste minimization certification, November 14, 2003
  - Completion of Explosion Isolation Wall Construction, November 18, 2003
  - Elimination of WIPP controlled documents at NMED, November 25, 2003
  - Submittal of Contract Laboratory standard operating procedures, December 30, 2003

2. RCRA-related Audits

• INEEL Labs and Sampling Process (A-03-15), May 19-23, 2003
  - Audit report received July 28, 2003
  - Revised B6 checklist received October 8, 2003
  - Issued approval letter November 20, 2003

• Hanford Recertification (A-03-14), June 16-20, 2003
  - Audit report received August 14, 2003
  - Issued approval letter December 5, 2003

  - Audit report received August 22, 2003
  - Issued approval letter December 23, 2003

• Advanced Mixed Waste Treatment Project (AMWTP) (A-03-05), August 18-22, 2003
  - Audit report received November 13, 2003
  - Revised B6 checklist received December 16, 2003
  - Issued approval letter December 23, 2003, but rejected Permittees’ argument to apply previous solids S&A results from 3100 m³ project to remaining waste

• Other audit reports currently under review
  - ANL-E/CCP Solids Follow-up (A-03-26), received October 10, 2003
  - RFETS Soils Sampling (A-04-08), received November 12, 2003
  - SRS Recertification (A-04-01), received December 1, 2003
- Hanford CCP Accelerated Process Line (A-03-25), received December 3, 2003
- LANL Recertification (A-03-27), received December 15, 2003
- Hanford/CCP HSG Unit (A-04-07), received December 15, 2003
- Hanford Certification Solids Follow-up (A-04-06), received January 8, 2004
- ANL-E/CCP Recertification (A-04-03), received January 13, 2004
- LANL Entech HSG (A-03-24), received revised report January 14, 2004

- Audits that NMED has observed and is awaiting an audit report:
  - NTS/CCP Recertification (A-04-04), October 6-10, 2003

- Upcoming audits
  - LLNL/CCP Certification, TBD
  - RFETS Recertification (A-04-10), March 29-April 2, 2004
  - INEEL Labs Decortications, May 2004
  - Hanford Recertification (including CCP), June 2004
  - AMWTP Recertification, August 2004

3. Compliance issues

- NMED unannounced inspection of WIPP compliance with Permit, May 6-8, 2003
  - NMED issued final inspection findings on December 23, 2003 – no violations found

- Request for 30-day hazardous waste storage extension, November 26, 2003
  - Low-level mixed waste (20 gallons of barium chromate) from WIPP radiochemistry lab
  - WIPP unable to coordinate waste shipment within 90-day storage limit
  - NMED granted request until December 28, 2003 on the same day

4. Other activities

- Legislation
  - Senator Domenici introduced S. 1424 (Energy and Water Development Appropriations Act), July 17, 2003
  - Conference bill H.R. 2754 passed both chambers of Congress, November 20, 2003
  - Language in Section 311 eliminates chemical sampling and analysis requirements, reduce 100% visual examination/radiography to statistical sampling
  - Bill signed by President and became Public Law 108-137 on December 1, 2003

- Meetings/presentations
  - NMED submitted comments on technical papers submitted by DOE to NAS WIPP Committee on November 7, 2003
  - Steve Zappe presented "The Road to Changing the WIPP Permit Via Federal Law" to NNMCAB meeting in Santa Fe, December 18, 2003

- NMED staffing
  - Carl Chavez from Michigan accepted vacant position in NMED’s WIPP project, start date is unknown
  - Second vacant position currently being evaluated by State Personnel Office
DECORTICATION

Pronunciation: dee' kortu'keyshun

Medical Dictionary

Definition: Removal of part or all of the external surface of an organ.
What is this workshop about?

Issues relating to the contents of those tanks located at Hanford and INEEL that contain transuranic waste and that the Department of Energy believes meet the requirements for disposal at the Waste Isolation Pilot Plant.

Who is presenting?

Invited Presenters as of January 14, 2003 include:

Matthew K. Silva, EEG: Origin of the Workshop
John Kretzfeldski, CH2M Hill: Hanford Tank Waste
Geoffery Fettus, NRDC: Effect of Civil No. 01-0413-S- BLW, July 2, 2003, on Technical Issues
Joel Case, INEEL
DOE/Carlsbad Field Office
Environmental Protection Agency
Idaho Dept of Environmental Quality
National Academy of Sciences
New Mexico Environment Department
New Mexico Attorney General’s Office
State of Washington Dept of Environmental Quality
State of Washington Dept of Health

What are the roles of attendees?

Presenter: Persons who are invited to present information at the Workshop. They are also Participants.

Participants: Persons, by virtue of their specific expertise, are invited to participate and interact with the Presenters.

Observers: Persons and organizations that have expressed an interest in the subject and who will be provided opportunities to make comments and interact with the Participants on the technical issues.
How can you obtain more information?

Check our website for current information:

➢ Tentative Agenda
➢ Printable Registration Form
➢ Accommodations Listing

Space is limited, so register early.
WIPP Update

Carlsbad Field Office
U.S. Department of Energy
January 2004

Waste Totals to Date

WIPP Receipt Totals as of 12/18/03

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Waste Emplacement Status - Panel 2

Panel Filled Projection: February 1, 2005

TRUPACTs per Shipment

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**New Carlsbad Field Office Organization**

- **Office of the Manager**
  - Assistant Manager for Operations
    - Office of Disposal
      - Waste Operations
      - Mine Services
      - Site Environmental Compliance
      - Safety
    - Office of Characterization and Transportation
      - Waste Certification
      - Packaging
      - Shipping
      - Gen. Site Interface
      - Inst. Affairs (States)
  - Office of Business
    - QA
    - Project Controls
    - Contracts
    - Legal Counsel
    - IT
    - Public Affairs
    - Budgets

To be implemented
CBFO Management Changes

New Deputy Manager – November 2003
Lloyd Piper

Acting Manager – January 15, 2004
Paul Detwiler

FY04 Budget:

• Final CBFO funding level still under discussion with DOE Headquarters

• Funding emphasis is on activities directly involved with waste characterization, transportation, disposal and permitting/re-certification
EPA Re-Certification Status

Phase 1 - Information and Data Collection

Phase 2 - Impact and Performance Assessment Activities

BLAC~OUT PERIOD

Phase 3 - Completion of CRA Documentation

Submit CRA to EPA
February, 2004

Phase 4 - DOE Response & EPA Decision Period

Compliance determination
Fall, 2004

Target submission date:
February 13, 2004

Hard deadline:
March 26, 2004

On schedule 1996 2001 2002 2003 2004

* "Blackout" refers to the period when EPA will focus on the CRA and not devote resources to processing other requests.

RH TRU Waste Permit Modification

In 1998, EPA determined that:
(1) the description of the expected RH waste inventory for disposal at WIPP met EPA's requirements
(2) performance assessment calculations showed that WIPP can safely contain RH waste
(3) DOE cannot emplace RH waste until it demonstrates that RH can be adequately characterized

Oct 2003
• CBFO submits revised RH TRU waste characterization plan to EPA

Dec 2003
• EPA reaches preliminary conclusion that the plan:
  "now provides an adequate framework for conducting RH waste characterization while giving RH sites the flexibility to develop site-specific programs for characterizing waste."
  - letter from Frank Marcinowski (EPA), December 19, 2003

• EPA notifies DOE and the public of its preliminary conclusion and intent to approve the RH waste characterization plan

• EPA is seeking public comment through January 30, 2004— CBFO expects approval before CRA blackout period (March 26)

• EPA will conduct on-site inspections to determine the adequacy of site-specific RH waste characterization programs
WIPP submitted a permit modification request for RH waste to NMED.

NMED issued a notice of deficiency (NOD) for the RH Permit modification request.

WIPP resubmitted an RH PMR (2nd NOD expected).

Final Reports @ NMED & Date

** Partial Approval

Upcoming Reports

Current and Near-Term Site Assessment Schedule

** Hanford/CCP A-04-07 sent 12/12/03 (Cert HSG)
LANL A-03-27 sent 12/12/03 (Recert)
Hanford/CCP A-03-25 sent 12/2/03 (Cert)
SRS/CCP A-04-01 sent 11/26/03 (Recert)
AMWTP A-03-05 sent 11/12/03 (Cert) **
RFETS A-04-08 sent 11/7/03 (Soil Repack)
ANL-E A-03-26 sent 10/8/03 (Solids Follow-up)
LANL A-03-24, sent 9/2/03 (HSG System)

January 2004

ANL-E/CCP Recert Audit A-04-03, 10/6-10/03
NTS/CCP Recert Audit A-04-04, 10/6-10/03
Hanford Cert Audit A-04-06, 11/4-6/03 (Solids follow-up)

LANL/CCP Cert Audit A-04-05 – February 23 – 27, 2004 (Initial certification)
LLNL/CCP Cert Audit A-04-XX – TBD (Certification)
LANL/CCP RH Cert Audit A-04-XX – TBD
RFETS Recert Audit A-04-10 – March 29 – April 2, 2004
INEEL Labs Recert Audit A-04-XX – May 2004
Hanford Recert Audit A-04-XX – June 2004
## PMR Status

### Three Class 3 PMRs Outstanding

1. RH TRU Waste – June 28, 2002 – March 2003 NOD – May 2003 re-submittal - Second NOD was to be issued by October 2003


3. Panel 4-10 HWDU - May 13, 2003 – Administrative Completeness granted August 14, 2003 – NMED issuance of draft permit for public comment pending

Data Management – June 27, 2002 – CBFO withdrew January 9, 2004

## January Class 3 PMR Submittals

   - Allows large containers (TRUPACT-III + LBO) and storage increase to accommodate them
   - Makes requirements less container-specific

   - Limit waste confirmation requirements to RTR and VE
   - Confirm VOC safety by sampling and analysis of VOC levels in the underground
January Class 2 PMR Submittals

   - Mobile remotely controlled platform for safer and more efficient transfer from unloading docks to waste hoist

2. Package-Specific DAC for new approved waste containers (second submittal) based on stakeholder and NMED comments – submitted Jan. 7, 2004
   - Added criteria that super-compaction breaches inner liner and must be documented in WWIS
   - Planned public meetings (for both Class 2 PMRs) in Carlsbad 2/17/04 and in Santa Fe 2/19/04
Basis for Interim Operations (BIO) for the WIPP Mobile Characterization Units

85th WIPP Quarterly Review
January 15, 2004

Phil Gregory,
Senior Technical Advisor
Washington TRU Solutions

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Status of MCUs

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<tr>
<th>Today</th>
<th>Setup</th>
<th>Readiness Assessment</th>
<th>Audit</th>
<th>EPAMMED Certification</th>
<th>Characterize</th>
<th>Ship</th>
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Basis For Interim Operations (BIO) Introduction

- **Purpose:**
  - Standardize DOE complex-wide Safety Basis for use of Mobile Characterization Units (MCUs)
  - Apply lessons learned across DOE TRU Waste Complex

- **Responsibility** – Configuration Control and maintenance of the Safety Basis assigned to Carlsbad Field Office

- **MCU History** – Successfully deployed at six sites (SRS, ANL-E, NTS, Hanford, LANL, and LLNL)

- BIO will be implemented during future MCU deployments

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Safety Basis Document Requirements

- Code of Federal Regulations, Title 10, Part 830; Subpart B (10CFR830,B)


- Additional Safety Analysis is not required each time MCUs are relocated to a new site

- Restart vs. New Start
BIO Documentation

- Basis for Interim Operation for the WIPP Mobile Characterization Units, Rev. 0, 10/03
- Technical Safety Requirements, Rev. 0, 10/03
- Application Guide, Rev. 0, 10/03
  - Siting Criteria Checklist
  - Safety Management Program Checklist
  - Readiness Review Checklist
- Approved for use by U.S. Department of Energy Assistant Secretary for Environmental Management, letter dated November 18, 2003

Characterization Equipment

- Non-Destructive Examination (Real Time Radiography)
- Non-Destructive Assay (Gamma Scan, Passive/Active Neutron/Gamma, Segmented Gamma Scan, High-Efficiency Neutron Counter)
- Head Space Gas Sampling and Drum Venting System
- Mobile Visual Examination and Repackaging
- Mobile Loader Unit
TSR Safety Significant
Structures, Systems, and Components

- DOT Type A vented drum integrity
- MOVER structural integrity
- MOVER glovebox confinement
- Drum Venting system explosion-proof chamber

Methodology

- Hazards Analysis
- Accident Analysis
  - Design Basis Accident
  - Beyond Design Basis Accident
- Safety Structures, Systems, and Components
- Derivation of Operational Controls
  - Technical Safety Review
  - Design Features
- Safety Management
MCU Application Guide
Siting Criteria Checklist
(Examples)

- Location, distance, and spacing of MCUs
- Emergency access and personnel egress
- Fire protection
- Utilities access
- Separation from diesel generation/fuel
- Level and stable equipment foundation
- Flood prevention
- Lightning protection and high wind restraints

MCU Application Guide Safety Management Program Checklist

- Criticality – (limit drum loading)
- Radiation – ALARA
- Hazardous Materials Protection
- Radioactive/Hazardous Waste Management Testing, Surveillance, and Maintenance
- Conduct of Operations
- Procedures and Training
- Quality Assurance
- Emergency Preparedness
- Management and Organization
MCU Application Guide
Readiness Review Checklist

- Siting criteria and management programs
- Procedures
- Interface documents
- Configuration management
- Trained USQ Evaluators
- Waste transfer operations
- Emergency response
- Waste staging area
- Additional controls/considerations

Conclusion

- Results of analysis presented in BIO
  - Low-chemical hazard
  - Hazard Category 2 non-reactor nuclear facility
- Workers, public, and environment are protected
  - Equipment design features
  - Validated procedures
  - Trained personnel
  - Site interface protocols and administrative controls
The Big Story

Standardization - a cost saving innovation

Last month DOE Assistant Secretary for Environmental Management Jessie Roberson approved an innovative process to ready small-quantity sites (SQS) for waste characterization. In a letter to DOE field managers, Roberson directed implementation of the Basis for Interim Operations (BIO) and Technical Safety Requirements for WIPP CCP Mobile Waste Characterization and Loading Units (MCUs).

The BIO and its accompanying documents are products of innovative thinking by WIPP personnel with the goal of accelerating SQS closures. Each TRU generator site must develop safety basis documentation before MCUs can operate at that site. Safety basis development is costly and time consuming. Many SQSs do not have the infrastructure to support this requirement. Enter the BIO.

The BIO, Technical Safety Requirements (TSR) and an application guide provide a universal template for safety basis development for MCU waste characterization. Regardless of site location, the requirements, equipment and operators remain the same. BIO takes advantage of these constants (while allowing for site variables) to standardize the safety basis development process. SQSs that meet BIO and TSR requirements, and follow the application guide, can be authorized by DOE to perform MCU characterization, certification and loading operations without additional safety analyses.

The BIO is a first-of-its-kind document that, when implemented, will result in substantial cost and time savings for SQS generators throughout the DOE complex. "A standardization method of this magnitude brings about consistency throughout the DOE complex," notes John Soares, WSMS principal engineer and project manager. "The BIO was conceived by a WIPP team and immediately supported by Dr. Triay. It opens the door for more innovative advances in how DOE work is performed. Other waste processes can be standardized in this manner."

The effort to develop the BIO was as groundbreaking as the documents themselves. A team of subject matter experts from several generator sites was assembled and headed by Soares and Dae Chung, senior technical advisor, EM-5. They completed the task in just four months.

"This team was pulled together to complete a product that has complex-wide ramifications. All of the project participants fully understood the WIPP objective and wanted to make the BIO a reality. The aggressive schedule for completion was self-imposed and all team members supported it completely," said Soares.

The BIO, TSR and application guide will be controlled and maintained by CBFO. The process will be implemented at a SQS to be determined in the near future.