

ENTERED

68<sup>th</sup> Quarterly  
October 22, 1999  
Hosted by EEG  
Final Agenda

8:30	Introduction	Matthew Silva
8:40	Update on DOE issues and activities	Dr. Inés Triay
9:00	Update on EEG issues and activities	Robert Neill
9:20	Update on Radioactive Waste Task Force issues and activities	Bill Mackie
9:40	Update on NMED issues and activities	Steve Zappe
10:00	Break	
10:15	Update of emplaced waste inventory	Dale Rucker
10:30	Summary of NMED Findings, Conclusions, and Response to Comments on draft RCRA Permit	Steve Zappe
11:00	DOE comments on the draft RCRA permit and Hearing Officer's report	Elizabeth Rose
12:00	Lunch	
1:00	Summary of operational incidents and corrective actions (e.g. displaced o-rings, hoist difficulties, incorrect uranium isotopes, stripped bolts, etc.)	Phil Gregory
1:30	Monitoring of roof stability in Panel 1	Stan Patchet
2:00	Quantities of future waste	Robert Neill
2:30	Follow-up discussion of the air monitoring workshop	DOE and EEG
3:00	Action items and closeout	

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# WIPP Quarterly Review

## October 22, 1999

### Activities Update for NMED's RCRA Permits Program

#### 1. Permitting Process Today

- Hearing Officer issued Report on September 10, 1999
  - Recommended that the NMED Secretary "issue a Final Order... granting a permit to the Applicants subject to the conditions specified in NMED's Proposed Final Permit of June 25, 1999..."
- Parties submitted comments on Hearing Officer's Report on September 28, 1999
- Secretary Maggiore issued an order on October 14, 1999 to open the record for parties to provide comment on whether the second sentence of Permit Condition IV.B.2.b applies to waste disposed of prior to permit issuance
  - Deadline for comment was October 20, 1999
- Anticipate final permit decision by Secretary on October 28, 1999
  - Preparing to issue final permit as soon as physically possible after Secretary's order
  - Expect effective date will be November 28, 1999

#### 2. Pre-Permit Disposal

- DOE concerns about applicability of Permit Condition IV.B.2.b
  - NMED clarification letter of October 4, 1999 stating that pre-permit enforcement actions would be taken under interim status regulations
  - DOE and WID must comply with all requirements of the final permit (including IV.B.2.b) once it becomes effective
- Total shipments as of October 21, 1999:

Site	# Shipments	# Containers
LANL	17	101 SWBs
RFETS	16	412 55-gal drums
INEEL	4	126 55-gal drums

### 3. NMED inspection of WIPP under interim status

- Inspection performed July 19 - 21, 1999
- Identified three violations
  - Failed to provide adequate aisle space in <90-day storage area
  - Failed to label hazardous waste container in satellite accumulation area
  - Failed to comply with requirements for hazardous waste tank at base of Exhaust Shaft
- Letter of Violation issued August 17, 1999
- Response from DOE received September 10, 1999
  - Addressed how the first two violations were remedied
  - Discussions continue on applicability of hazardous waste tank regulations to Exhaust Shaft catchment basin

### 4. Expectations for Post-Permit Activities

- DOE has expressed desire "to delay effective date of the permit or Module IV.B.2.b until one or more final audit reports have been approved by NMED"
  - Apparent shift in DOE focus from NMED responsibility for permit issuance delay to DOE receiving a "workable" permit
  - DOE will continue to ship "non-mixed" TRU waste
- NMED participation in RCRA-related audits
  - DOE notified NMED on October 19, 1999 that audits under II.C.2 will be conducted December 6 - 10, 1999 (RFETS) and January 10 - 14, 1999 (Hanford)
  - NMED and technical contractors anticipate observing these audits
  - Expect final audit reports from DOE no sooner than 30 days after audit
  - Additional time required for NMED review and approval (currently reviewing interim audit report for RFETS received October 7, 1999)
- Permit Modification Requests
  - Informally discussed DOE-identified "inconsistencies" and interpretations of proposed final permit language
  - Expect Class 1 modification request upon permit issuance or shortly thereafter
  - Expect Class 2 modification request (containing non-controversial changes) shortly after Class 1 modifications incorporated into permit

# WIPP Quarterly Review

## October 22, 1999

### NMED's Proposed Findings of Fact and Conclusions of Law

1. Administrative and Regulatory Background
  - Established NMED's authority to issue a permit and documented that NMED followed all administrative and regulatory requirements for public notice and involvement
  - NMED conditions are reasonable, supported in the record, and consistent with the NM Hazardous Waste Act (**HWA**)
  - Full record reveals no basis for denying final HWA permit
2. Audit Requirement (Condition II.C.2)
  - Audits are necessary condition for NMED's approval of Waste Analysis Plan (**WAP**), since the WAP in application was deficient (e.g., did not contain physical & chemical analysis, did not contain all information needed for proper storage and disposal, did not propose fingerprint analysis, etc.)
3. RH TRU Waste Prohibition (Condition II.C.3.h)
  - Application was deficient, failed to contain necessary detailed waste characterization procedures
4. Miscertification Rate (Attachment B2-1)
  - Necessary to ensure waste is properly characterized and does not contain prohibited or incompatible items
  - Rate proposed in application was deficient based upon testimony
5. WIPP Waste Information System (**WWIS**) (Condition II.C.1.g)
  - WWIS contains waste characterization, certification, and shipment records which are required to be available to NMED
  - Application was deficient because it failed to provide NMED necessary access to records
6. Composite Sampling (Attachment B1-2)
  - Objective of condition is to increase representativeness of sampling process, eliminate inconsistencies and create equivalency between VOC and other core sample analyses
7. Financial Assurance (Conditions II.N, II.M, II.P)
  - Requirement is based upon strong policy reasons, is lawful, and is a reasonable interpretation of 40 CFR §264 Subpart H

8. Tentatively Identified Compounds (**TICs**) (Attachments B-3d, B3-1)
  - Process proposed in application was deficient because it failed to ensure all applicable waste codes would be applied to a waste, resulting in improper management, storage, and disposal of waste
  
9. Prohibition of TRU Non-Mixed Waste (Condition IV.B.2.b)
  - NMED's review and approval of WAP predicated on applicant's commitment to manage and characterize all TRU waste in accordance with WAP and that no TRU waste would be disposed of prior to permit issuance
  - Evidence supports NMED's determination that carcinogenic VOCs will be released from TRU mixed and non-mixed containers
  - WAP characterization is necessary to ensure compliance with environmental performance standards, to ensure no prohibited wastes are disposed of, and to ensure enforceability of permit conditions
  
10. Confirmatory VOC Monitoring Program (Conditions IV.D, IV.F.2)
  - Requirement to implement is authorized, reasonable, and based upon substantial evidence
  - Revision of mine exhaust ventilation rate is reasonable
  
11. Detection Monitoring Program (Module V)
  - Program is necessary to detect a release of hazardous constituents to ground water
  
12. Point of Compliance for Detection Monitoring Program (Condition V.B)
  - Supported by substantial evidence and in accordance with law, which requires co-location of Point of Compliance and ground-water monitoring system
  - Applicants do not challenge NMED's proposed Point of Compliance
  
13. Corrective Action (Module VII)
  - Determination to impose corrective action is reasonable and in accordance with HWA and regulations
  - Determination to require "further action" and "no further action" also reasonable

## **NMED's Comments on the Hearing Officer's Report**

1. Introduction
  - Recommend Secretary adopt Hearing Officer's Report, with one exception
2. Permit Condition VI.B.2.b
  - The Secretary has clear legal authority under the HWA and RCRA to impose Permit Condition IV.B.2.b
  - Permit Condition IV.B.2.b is supportable under United States v. New Mexico, and does not substantively "regulate" non-mixed waste
  - Permit Condition IV.B.2.b does not conflict with federal regulations or the AEA
3. Comment on Hearing Officer's recommended revision to Permit Condition IV.B.2.b
  - Hearing Officer incorrectly stated and analyzed NMED's response to DOE's proposed revision to Permit Condition IV.B.2.b

## **NMED's Comments on the Secretary's Amended Order**

- Q. "Does the prohibition regarding disposal of TRU mixed waste referenced in the second sentence of Permit Condition IV.B.2.b apply to waste disposed of prior to permit issuance?"
- A. No. As a matter of law, it cannot apply to any waste disposed of prior to permit issuance

68<sup>th</sup> NIPP Quarterly  
10/22/95

CAO  
Jin's Tracy - LANL not planning to ship until after July 08, INEEL  
not shipping until program aligned w/WAPP and re-audited.  
CAO seeking to delay effectiveness ~~date~~ to maintain shipments.  
- Future tech exchanges TBD - Geochem<sup>geo/hydro</sup> mfg on 10/28  
- Still looking for CAO Deputy mgr, previous search yielded  
limited diversity (i.e. outside DOE). Advertised, closes 11/8

Bob Neill  
EEG Authorization extended another 5 years.  
Evaluating technical impact of DOE compliance w/ WAPP requirements for  
pre permit disposal.

Bill Mackin  
SOE  
Headstart

Dale Becker  
curves employed in Repository from UWS, majority from  
Pu-241. <sup>Delly</sup> Recommended changes to UWS. Jin's recommends  
6 mo timeframe for UWS user group

SOE

Phil Gregory - 1 CV Vent Port Cover - involved two persons, but  
required NRC citation, now use shadow block (still pressed)  
- minor contamination event - attributed to polonium-210,  
common around Denver, swipe cleaned TRUPACT  
- missing O-ring on inner vent port plug, happened at LANL  
& INEEL, actually present but sucked in during pressure  
evaluation. Pursuing possible fixes  
- loose screws 1CV lid holding honeycomb, aluminum  
sil metal clip. Now use threaded clip

Sten Pothet Panel 1 Ground Control - use current best mgmt principles in ground control

Panel 2 to be complete by July '88

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Panel entries now  
Bob Neill Future quantities of waste - handout

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Closest  
Action  
item  
EEG recommendations for improving waste char audits  
- possible workshop topic  
Send e-mail concerning formation of ~~env~~ WWS committee



# 68<sup>th</sup> WIPP Quarterly Review Meeting

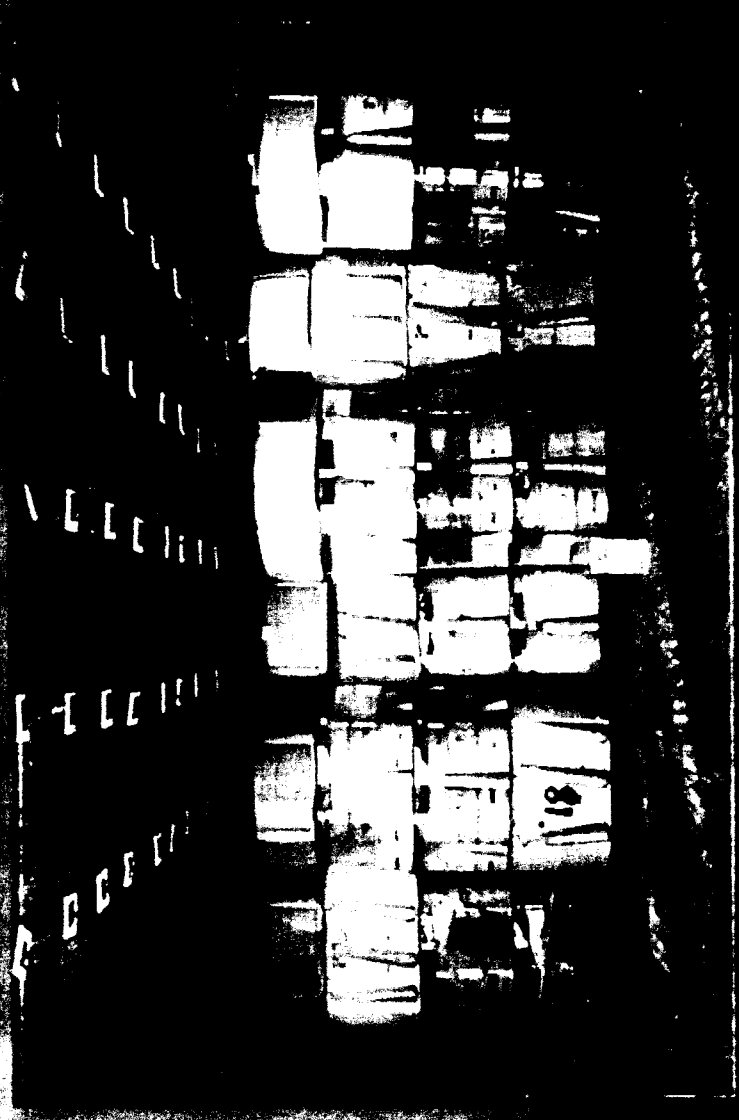
October 22, 1999

EEG

## ATTENDANCE SHEET

Name/Affiliation	Address	Phone	Email
Jess Triay	CAO	505-234-7300	triyaj@wipp.carlsbad.nm.us
Lokesh Chaturvedi	EEG	828-1003	LC4TUR@EEG.ORG
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William B MACKIE	NM Radioactive Waste Tax Force	505-827-1372	Bmackie@state.nm.us
ROBERT F KENRMAN	WESTINGHOUSE	606-234-8090	KENRMAN@WIPP.CARLSBAD.NM.US
S. J. PATCHET	WESTINGHOUSE WID	505-234-8370	
Ben Walker EEG	505 Nc Main Carlsbad	505-885-9175	eejwalker@carlsbad.nm.com
Dale Rucker	EEG / ABO	828 1003	drucker@eeg.org
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GLENN R SMITH	NM Atty General's Office 407 Galisteo S.F. 87584	827-6000	Gsmith@AGO.State.NM.US
Bill Bartlett	EEG/ABQ	828-1003	wtbart@eeg.org
Gloria Barnes	Westinghouse WID - Carlsbad, NM	234-1377	barnesg@wipp.carlsbad.nm.us
Elizabeth Rose	DOE-CAO	234-7361	roseee@wipp.carlsbad.nm.us
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Don Hancock	SRIC	505-262-1862	sricdm@aol.think.net

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1117 0280-1117 1980



# RCRA PERMIT STATUS

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- **NMED Secretary issues Order allowing parties to comment on proposed Final RCRA permit condition IV.B.2.b. Comments due October 20, 1999**
- **Anticipate final RCRA permit to be issued October 28, 1999**
- **Final RCRA Permit may become effective as early as 30 days after issuance**

# TRU WASTE SHIPMENTS TO DATE

• INEEL	4
• LANL	17
• RFETS	16
• Total	37



# MgO Vendors

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- **Vendor previously supplying MgO backfill no longer produces that product**
- **Currently a 5-month supply on site, assuming ~ 2 shipments per week**
- **Two prospective suppliers have been identified**
  - **Sandia currently performing technical evaluation of alternate products**



# **TECHNICAL EXCHANGE MEETINGS**

## **CAO/EEG**

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- **February 1999--Far Field Transport, Disposal Room Processes, Brine Chemistry from Bates wells**
- **April 1999 --Direct Release Models, Well Maintenance (plugging & abandonment), Status of WIPP well H-1**
- **October 14, 1999--WIPP Air Monitoring**
- **October 28, 1999--List of topics TBD**



# **OTHER MEETINGS**

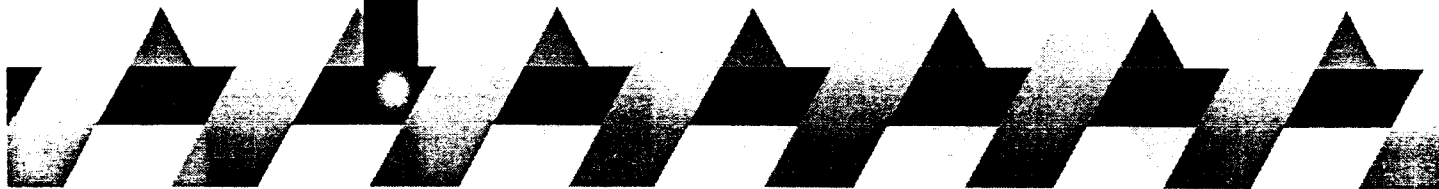
## **EEG/NAS/EPA**

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- **April 1999--NAS Subcommittee Meeting in Albuquerque; Oil & Gas and Potash Mining in the WIPP area**
- **May 1999--NAS Committee Meeting in Washington DC; 40 CFR 194.42 Pre-Closure Monitoring Program**
- **July 1999--NAS Committee Meeting in Albuquerque; National TRU Programs, RCRA Permit, Performance Assessment and Experimental Programs**
- **September 1999--EPA Information Meeting; Desktop PA & Research Data Management**

# Y2K READINESS

• Declared in October 1999





# **DEPUTY MANAGER'S POSITION**

• **Re-advertised October 7, 1999**

• **Closes November 8, 1999**



ENVIRONMENTAL EVALUATION GROUP

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# LXVIII QUARTERLY MEETING

**U.S. Department of Energy**  
**N.M. Energy Minerals and Natural Resources Dept.**  
**N.M. Environmental Evaluation Group**  
**N.M. Environment Department**  
**N.M. Attorney General**

**Robert H. Neill**

**October 22, 1999**  
**Albuquerque, NM**

- **FIVE YEAR EXTENTION OF EEG AUTHORIZATION**
  - **Defense Authorization Act for FY 2000 (Public Law 106-65). Signed by President on October 5, 1999.**

### **Additional Authorities**

- **Public Law 102-579**
- **DOE/NM Consultation and Cooperation Agreement**
- **New Mexico State Statute (NM 74-4A)**

- **Workshop on Monitoring Radioactivity in Air, October 14-15, 1999**
  - Excellent discussion
  - Commend B. Bartlett, J. Mewhinney, Roger Nelson
  - 3 of 10 authors of ANSI N13.1 present
  - Problems of water on filters and low air flow candidly discussed
- **Workshop on Technical Program Status, October 28-29, 1999**
  - Geological and hydrological topics
  - Geochemistry topics
  - Near field disposal system topics
- **MgO Analysis**
  - Requirements
  - Advantages
  - Disadvantages

- **Technical Aspects of IVB2b Waste Characterization RCRA Issues**
  - Calculate potential risk from wastes emplaced prior to permit
  - Comparison of characterization methods used with WAP requirements
  - Comparison of QA used with permit requirements
- **Buried TRU Waste**
  - 138,000 M<sup>3</sup> buried prior to 1970
  - DOE waste inventory update
- **Extend EEG Web Site Material, [www.rt66/~eeg.com](http://www.rt66/~eeg.com)**
- **Don Gray laboratory participant in NIST Radiochemistry Intercomparison Program (NRIP) and Environmental Measurements Laboratory (EML)**

- **1999 Audits**

Walker, B.A.	1/24-29	CAO audit of TRU Tech mobile vendor, NtS, Las Vegas, NV
Bartlett, W.T. Channell, J.K.	2/9-10	Defense Nuclear Facilities Safety Board Audit, Carlsbad, NM
Walker, B.A.	2/16-19	CAO surveillance assessment at LLNL, Livermore, CA
Silva, M.	2/23-25	CAO surveillance of SNL Document Control, Sandia National Laboratories, Albuquerque, NM
Walker, B.A.	2/28-3/6	CAO/EPA recertification audit of RFETS, Denver, CO
Bartlett, W.T.	3/23-25	EPA audit of WIPP, Carlsbad, NM
Walker, B.A.	3/23-26	CAO/EPA recertification audit activities of Canberra software at RFETS, Denver, CO
Walker, B.A.	4/12-16	Observation of CAO audit of RFETS residue waste characterization processes, Denver, CO
Walker, B.A.	4/26-29	Observe EPA inspection of RFETS salt residues and LECO crucible repacking, Denver, CO
Channell, J.K	5/2-4	CAO/CTAC QA surveillance of INEEL, Idaho Falls, ID

Channell, J.K.	5/5-7	CAO/CTAC QA surveillance of Battelle, Columbus, OH
Walker, B.A.	5/17-21	Observation of CAO/EPA certification audit of INEEL, Idaho Falls, ID
Walker, B.A.	6/7-11	CAO audit of NTS, MCS and TRUTech, Las Vegas, NV
Channell, J.K.	6/14-17	CAO audit of LANL, Los Alamos, NM
Walker, B.A.	6/15-17	RFETS audit, Denver, CO
Channell, J.K.	6/28-7/1	CAO audit of LANL waste characterization, Los Alamos, NM
Walker, B.A.	6/28-7/2	WID QA program audit, Carlsbad, NM
Walker, B.A.	7/12-15	CAO audit of LANL RCRA compliance, Los Alamos, NM
Channell, J.K.	7/12-16	CAO/CTAC audit of Hanford TRU waste, Richland, WA
Walker, B.A.	7/26-30	CAO audit of INEEL (RCRA and recertification follow-up), Idaho Falls, ID
Channell, J.K.	8/23-27	Observance of CAO audit (A-99-24) of Savannah River Plant, Aiken, SC
Walker, B.A.	9/13-17	CAO audit of additional residue waste characterization, RFETS, Denver, CO
Walker, B.A.	10/19-20	WID audit, WIPP site, Carlsbad, NM

# SINCE LAST QUARTERLY

- **Reports**

EEG-72, *A Comparison of the Risks from the Hazardous and Radioactive Waste Portions of the WIPP Inventory*, James K. Channell and Robert H. Neill, July 1999.

EEG-73, *Preoperational Radiation Surveillance of the WIPP Project by EEG from 1996 - 1998*, Jim W. Kenney et al., October 1999, in press.



## • Papers

Silva, M. K., Rucker, Dale F, and Chaturvedi, Lokesh. 1999. *Resolution of the Long-Term Performance Issues at the Waste Isolation Pilot Plant*, Risk Analysis, Vol. 19, No. 5, in press.

Chaturvedi, L., M.K. Silva, D. Rucker, J.K. Channell, and R.H. Neill. 1999. *Performance Assessment Issues for Recertification of the Waste Isolation Pilot Plant*, Proc. 7th International Conference on Radioactive Waste Management and Environmental Remediation (ICEM'99), Nagoya, Japan, September 26-30, 1999, Pub. by ASME International on CD-ROM.

Maleki, Hamid and Lokesh Chaturvedi. 1999. *Geotechnical Factors Influencing Stability in a Repository in Salt*, 37th Rock Mechanics Symposium, Vail Rocks '99, June 6-9, 1999, Vail, CO.

Chaturvedi, L., R.H. Neill, M.K. Silva, D. Rucker, J.K. Channell, and W.T. Bartlett. 1999. *Long Term and Operational Safety Issues at the WIPP*, Proc. Waste Management '99 Conference, Tucson, AZ, March 1-4, 1999, Session 58, Paper #3, Pub. By WM Symposia, Inc. on CD-ROM.

## • Presentations

Neill, R.H.	5/13	“EEG Perspectives on Transportation and Packaging”, NRC/NAS Committee on WIPP, Washington, DC
Neill, R.H.	6/7	“Comments on EPA/NRC HLW Standards”, Member, HLW Committee, Aspen Institute, Wye Island, MD
Bartlett, W.T.	6/30	“Siting and Qualification of WIPP Air Effluent CAMs – WPM-E.3”, presented at the Health Physics Society 44 <sup>th</sup> Annual Meeting, Philadelphia, PA
Neill, R.H.	7/15	“Management and Disposal of TRU Waste”, lecture for Management of Nuclear Materials and Wastes one week summer course, Center for Nuclear & Toxic Waste management, University of California, Berkeley
Neill, R.H.	7/15	“Perspectives on Acceptability of Environmental Radiation Exposure”, Management of Nuclear Materials and Wastes Summer Course, Center for Nuclear & Toxic Waste Management, University of California, Berkeley
Neill, R.H.	7/26	“EEG Perspectives”, National Academy of Sciences, WIPP Committee Meeting, Albuquerque, NM

Neill, R.H.	7/28	EEG Status/Activity Report, 67 <sup>th</sup> Quarterly Meeting, Santa Fe, NM
Neill, R.H.	8/31	“WIPP Update”, Radioactive Waste and Hazardous Materials Committee, N.M. Legislature, Albuquerque, NM
Silva, M.K.	9/16	“Natural Resources at the WIPP”, 1999 Oil and Gas Symposium, Morrow Formation, Roswell Geological Society, Inc., Petroleum Technology Transfer Council, Roswell, NM
Neill, R.H.	9/20	Presentation to Carlsbad Economic Summit, Carlsbad, NM
Chaturvedi, L.	9/30	“Performance Assessment Issues for Recertification of WIPP:”, ICEM '99, Nagoya, Japan
Silva, M.K.	10/19	“Technical Issues for an Operational Nuclear Waste Repository”, Graduate Chemical Engineering Seminar, University of Kansas, Lawrence, KS
Gray, D.H.	10/18-22	“Pre-Operational Baseline of Airborne Transuranic Radionuclides in the Environment Around the WIPP Site”, 45 <sup>th</sup> Conference on Bioassay, Analytical and Environmental Radiochemistry NIST, Gaithersburg, MD

## • Other

Chaturvedi, L.	6/14-17	4 <sup>th</sup> GEOTRAP Workshop, Confidence Building in Models of Radionuclide Transport for Site-Specific Performance Assessment”, Carlsbad, NM
Chaturvedi, L. Silva, M.	8/12	Mississippi Potash mine tour, Carlsbad, NM
Rucker, D.	8/12	WIPP meteorological monitoring and consequence assessment, WID, Carlsbad, NM
Chaturvedi, L.	8/19	WIPP underground tour with member of press, Carlsbad, NM
Rucker, D.	9/1	WIPP database management and desk top P.A., EPA, DOE, SNL, Carlsbad, NM
Neill, R.H.	9/2-3	Member, TRW High Level Radioactive Waste Advisory committee Meeting, Las Vegas, NV
Kenney, J.	9/13	New Mexico Mining Association Annual Convention, 9/12-14/99, Carlsbad, NM
Chaturvedi	9/30	Panel discussion participant, ICEM '99, Nagoya, Japan

**STATE OF NEW MEXICO'S  
RADIOACTIVE WASTE TASK FORCE**

**UPDATE ON WIPP ACTIVITIES**

**Presented To**

**68<sup>th</sup> WIPP QUARTERLY REVIEW MEETING**

**between**

**STATE OF NEW MEXICO**

**&**

**U. S. DEPARTMENT OF ENERGY**

**Albuquerque, New Mexico  
October 22<sup>nd</sup>, 1999**

**Presented by**

**William B. Mackie  
Coordinator  
N.M. Radioactive Waste Consultation Task Force  
(505) 827-1372**

## **TASK FORCE ACTIVITIES**

- **COORDINATOR DEVOTED CONSIDERABLE TIME TO ORIENTATION AND REVIEW OF APPROPRIATE REFERENCE MATERIALS DURING QUARTER**

- **WIPP WORKING GROUP**

**Held monthly meetings during quarter (August 10<sup>th</sup>, September 7<sup>th</sup>, and October 5<sup>th</sup>)**

**Focus of Meetings:**

- 1. Transportation Safety**
- 2. Emergency Response Preparedness**
- 3. Training**
- 4. FY- 2001/2002 Work Plan**

- **WIPP TRANSPORTATION SAFETY PROGRAM WEB SITE**

**Web Site Updated Weekly [[www.emnrd.state.nm.us/wipp](http://www.emnrd.state.nm.us/wipp)]**

- **PARTICIPATED IN ONE HOUR TELEPHONE INTERVIEW ON WIPP WITH TRI-CITY HERALD OF RICHLAND, WA.**
- **ENVIRONMENT DEPARTMENT REPRESENTATIVE INTERVIEWED FOR HEALTH PHYSICS SOCIETY'S NEWSLETTER for article entitled " WIPP Receives First Shipment of TRU Waste"**

## **TASK FORCE ACTIVITIES (Continued)**

- **PREPARED AND SUBMITTED COMMENTS ON THE FOLLOWING:**
  1. **Sandia National Laboratory's draft Transportation Plan to ship TRU waste to LANL**
  2. **Western Governors' Association's Lessons Learned Report**
  3. **DOE/CAO Draft Info Backgrounder on "Naturally Occurring Radioactive Material at the WIPP"**
  4. **Draft Outline for DOE Transportation Protocols revision**
  
- **MEETINGS/BRIEFINGS ATTENDED:**
  1. **Sandia National Laboratory's Quarterly Public Meeting**
  2. **DOE/EEG Workshop on "The Monitoring of Radioactive Air at the WIPP"**
  3. **Informational meetings with Economic Development personnel from Andrews, Texas and City Council of Jal, New Mexico on a proposal to route WIPP shipments from the East through these communities.**
  4. **Selected Working Group Members participated in the Hazardous and Radioactive Materials Interim Legislative Committee Meeting (7/99)**

**STATE OF NEW MEXICO  
WIPP TRANSPORTATION SAFETY PROGRAM**

- **NEWNET gamma monitor at Raton POE received strong signal from RFETS WIPP Shipment (8/12/99) - Bobby Lopez**
- **TRAINING PROVIDED:**

**Overview of Emergency Operations Plan presented to Public Health Division - 200 Attendees (7/12/99)**

**Conducted "Hospital Response to Big Bad Things" course - 10 Attendees (7/27-28/99)**

**CVSA Enhanced Inspection Course conducted -- 19 Attendees (8/2-5/99)**

**Participated in DOH Incident Command System Training - 32 Attendees (8/17/99)**

**CVSA Enhanced Refresher Training Course - 4 Attendees (8/19/99)**

**DOH participated in Albuquerque Waste Management Department Tabletop exercise**

**HAZMAT Operations Course hosted by NMDPS - 12 Attendees (NMSP Emergency Response Officers) (9/25/99)**

**Provided EMS HazMat Awareness Course - 23 Attendees (9/27/99)**



**STATE OF NEW MEXICO  
WIPP TRANSPORTATION SAFETY PROGRAM  
(Continued)**

- **CVSA INSPECTIONS**

**Motor Transport Division conducted departure/arrival inspections for 22 shipments enroute to WIPP**

**To assist in inspections, Motor Transport division obtained (through DPS) a 6' X 12' inspection trailer with generator and lights.**

- **Environment Department compiled dosimetry data for all MTD WIPP Inspectors which included six months of External Exposure Data -- all results were recorded below the control badge exposures.**

# TRUPACT-II EVENTS

- **Missing Dust Cover**
- **Minor Contamination**
- **Missing O-ring**
- **Loose Screws**

# Missing dust cover

- **ICV vent port cover**
- **found missing on a shipment from LANL**
- **cover provides function similar to hubcap on a car**
- **no safety implication**
- **caused additional audits of shipper sites and implementation of shadow boards**

# **Minor contamination event**

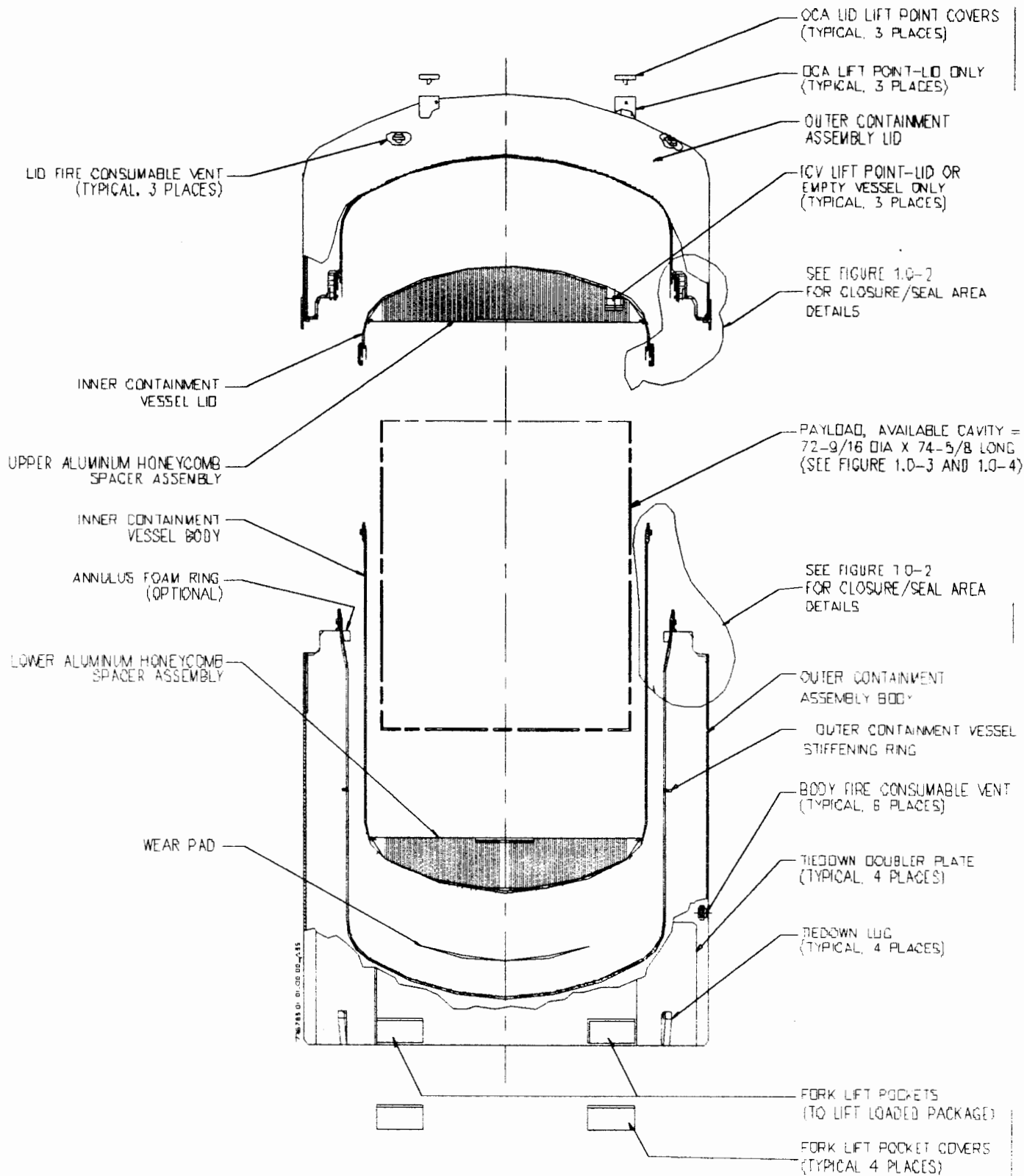
- **on a shipment from Rocky Flats**
- **polonium-210, from decay of radon**
- **common around Denver**
- **found on one smear out of 130 taken**
- **appears that swipe cleaned the TRUPACT-II**
- **improved communications with stakeholders**

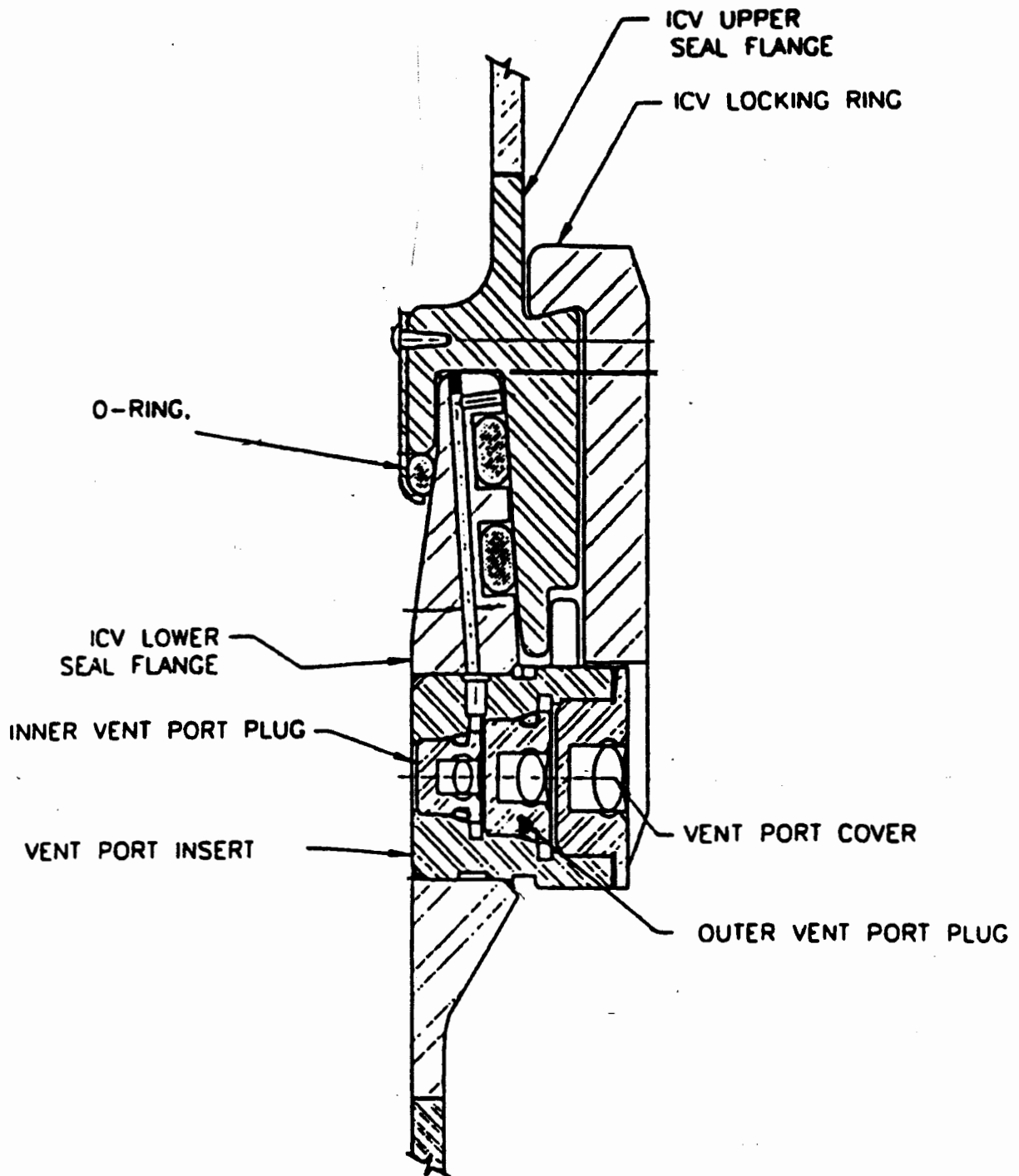
# Missing O-ring

- **ICV inner vent port plug seal O-ring**
- **non-containment boundary**
- **provides aid to testing of main O-ring**
- **has happened twice (INEEL and LANL) shipments**
- **have not been able to reproduce under test conditions**
- **are pursuing possible fixes to prevent reoccurrence**

# **Loose screws**

- **upper spacer assembly fasteners**
- **aluminum screws in U-type nuts**
- **configuration caused degradation of screws**
- **changed to a Tapped Hole U-nut**
- **half of the fleet has been reconfigured**







# TRUPACT II PARTS

## INNER CONTAINMENT VESSEL



1/4" drive  
square socket

**ICV SEAL TEST  
PORT PLUG & O' RING**



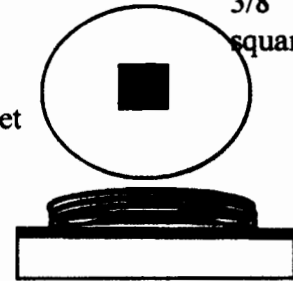
1/4" drive  
square socket

**ICV INNER VENT  
PORT PLUG & O' RING**



3/8" drive  
square socket

**ICV OUTER VENT  
PORT PLUG & O' RING**

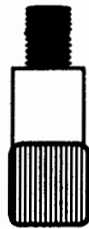
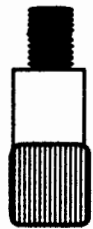


3/8" drive  
square socket

**ICV VENT PORT COVER  
& GASKET**



3/8" drive  
Allen

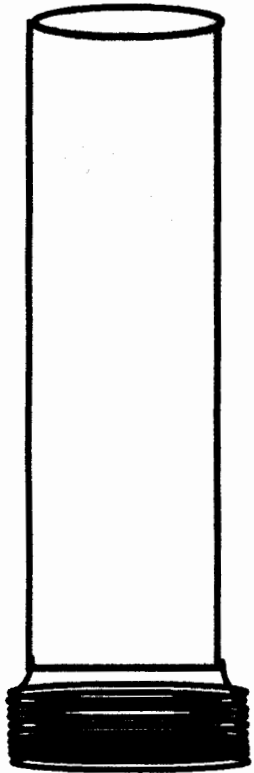


**ICV LOCKING RING BOLTS (3)**

(DRAWINGS NOT TO SCALE)

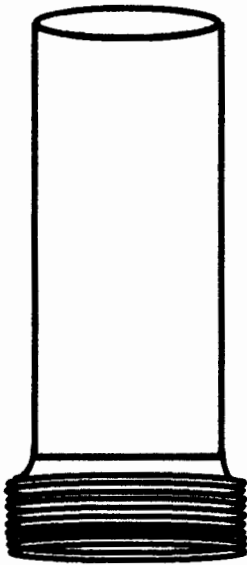
# TRUPACT II PARTS OUTER CONTAINMENT VESSEL

1" SOCKET



OCV VENT  
PORT  
ACCESS  
PLUG

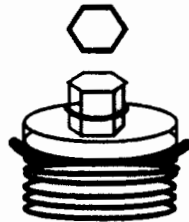
1" SOCKET



OCV TEST  
PORT  
ACCESS  
PLUG

(DRAWINGS NOT TO SCALE)

5/8" SOCKET



OCV VENT PORT  
COVER & "O" RING'S

7/16" SOCKET

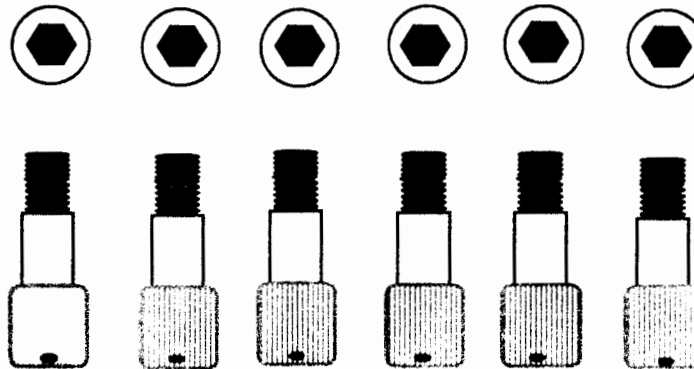


OCV VENT PORT PLUG  
& "O" RING'S

5/16" SOCKET

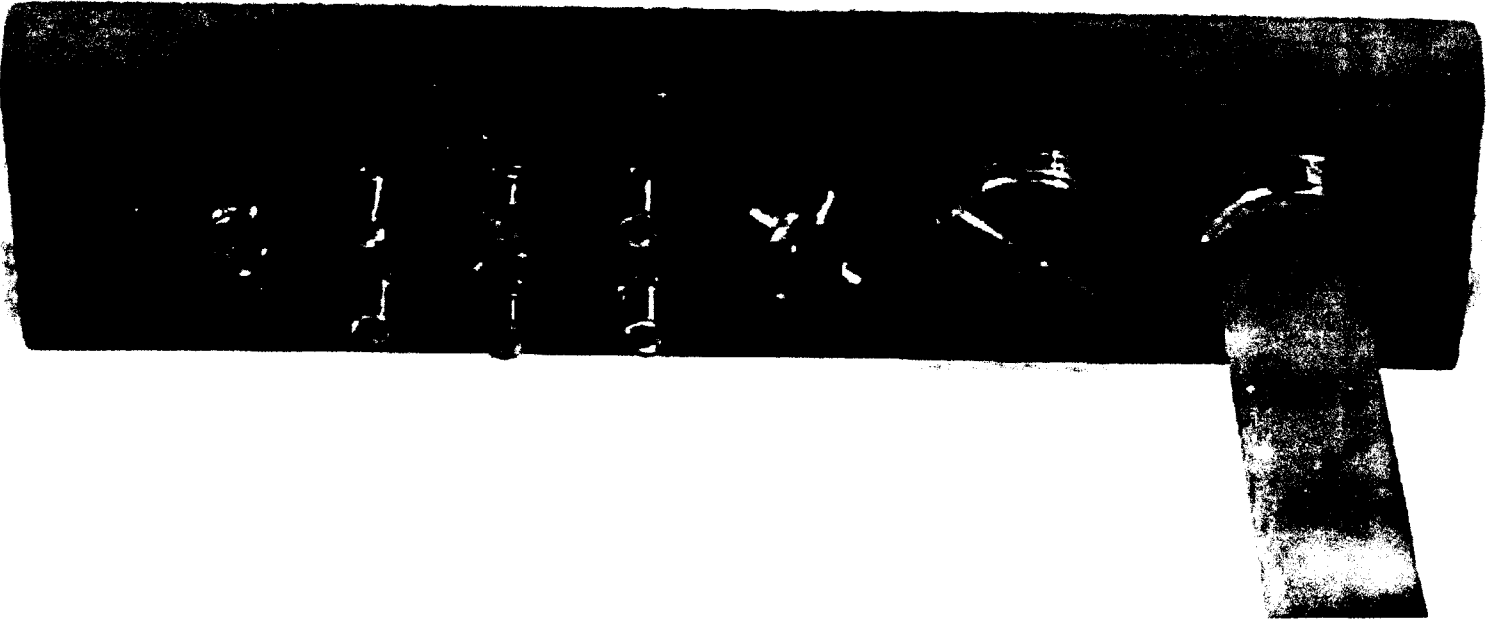
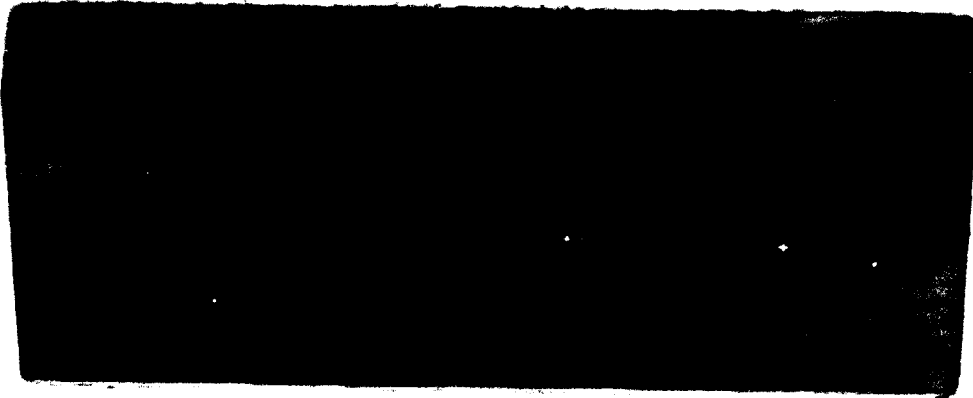


OCV TEST PORT PLUG  
& "O" RING



OCV  
ACTUATING  
RING BOLTS (6)

3/8" ALLEN



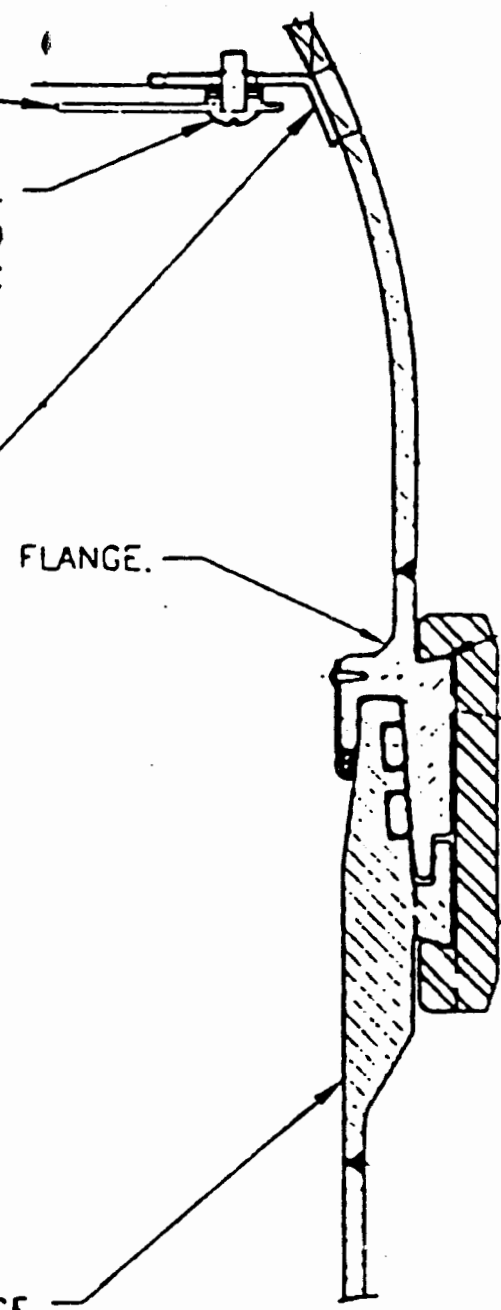
UPPER SPACER ASSEMBLY

1/4-20UNC X 3/4 PAN HD.ALUM. SCR.  
5/16 FLAT WASHER, AS REQ'D  
U-TYPE FASTENER, 1/4-20 UNC  
6 PLCS EQ.SP.

BRACKET, 12GA.(.105 THK)  
1-1/2 WIDE, 6 PLCS EQ. SP.

ICV UPPER SEAL FLANGE.

ICV LOWER SEAL FLANGE.



**PANEL 1**  
**GROUND CONTROL**

# **Panel 1**

## **Ground Control**

**PRINCIPLE: adopt and utilize the best management principles in ground control in order to protect human health and the environment.**

# **Current Best Management Principles in Ground Control**

- ◆ Geotechnical (Risk) Assessment
- ◆ Design Documentation
- ◆ Ground Control Instructions
- ◆ Implementation of Instructions
- ◆ Assessment of Effectiveness
- ◆ Quality Assurance and Control

# Available Documents

- ◆ 30 CFR (Part 57)
- ◆ Annual Ground Control Operating Plan (02/99)
- ◆ Long-Term Ground Control Plan (DoE/WIPP 96-2180, rev 3, 06/99)
- ◆ Geotechnical Analysis Report (DoE/WIPP 99-2300, 03/99)
- ◆ Geotechnical Engineering Program Plan (WP07-1, rev 2, 03/98)
- ◆ Engineering Conduct of Operations (WP09, rev 4, 07/99)
- ◆ ASTM F432-83, “Standard Specifications for Roof and Rock Bolts and Accessories”
- ◆ and so on ...



# **Geotechnical (Risk) Assessment**

**PRINCIPLE: identify ground control measures necessary to protect human health and the environment.**

- design validation**
- annual Geotechnical Analysis Report**
- *ad hoc* Geotechnical evaluations**
- Annual Ground Control Operating Plan**
- Long-Term Ground Control Plan**
- qualified, experienced independent review**

# **Design Documentation**

**PRINCIPLE:** ground control measures, both during and after installation, do not pose undue risk to human health and the environment.

- **work is performed under controlled processes**
- **work is independently checked**
- **performance is field verified**  
(as 30 CFR 57, Subpart B)

# **Ground Control Instructions**

**PRINCIPLE: give practical guidance, instruction, and direction to persons involved in work activities related to or dependent upon ground control systems.**

- inspections**
- day-to-day maintenance**
- job work packages complete and comprehensive**
- stop work policy**

# Implementation of Instructions

**PRINCIPLE:** ensure that ground control systems are implemented as designed and instructions are observed.

- management inspections
- regulatory inspections
- systematic ground control inspections
- daily workplace inspections

# **Assessment of Effectiveness**

**PRINCIPLE: assess adequacy of ground control measures and ensure that if an adverse condition is found, there is sufficient time for action to recover and stabilize the situation.**

- bi-monthly evaluation**
- waste disposal area clearance**
- Geotechnical Analysis Report**
- qualified, experienced independent review**

# **Quality Assurance and Control**

**PRINCIPLE: ensure that appropriate materials are available and that they are suitably installed and maintained.**

- training**
- procurement**
- work hold and verify points**
- random inspections**
- management inspections and audits**
- regulatory agency inspections and audits**

# Conclusions

- ◆ Ground Control uses best management practices
- ◆ Work is performed to highest professional standards
- ◆ Work is reviewed by qualified, experienced professionals
- ◆ QA/QC used throughout process



ENVIRONMENTAL EVALUATION GROUP

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

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# QUANTITIES OF FUTURE TRU WASTE

**Robert H. Neill**  
**October 22, 1999**

*Providing an independent technical analysis of the Waste Isolation Pilot Plant (WIPP),  
a federal transuranic nuclear waste repository.*



- **WIPP DESIGN CAPACITY**

CH-TRU 175,000 M<sup>3</sup>

RH-TRU 7080 M<sup>3</sup>

- **EXISTING WASTE<sup>a</sup>**

CH-TRU<sup>b</sup> 104,400 M<sup>3</sup>

RH-TRU 1,668 M<sup>3</sup>

<sup>a</sup>National TRU Waste Management Plan Rev.1, DOE/NTP-96-1204,  
December 1997

<sup>b</sup>Includes 27,000M<sup>3</sup> of INEEL Alpha Low Level Waste. WIPP Disposal  
Phase Final SEIS, Vol. II, p J-3

# Existing WIPP CH-TRU Design Capacity

	<u>Excluding INEEL</u> <u>ALPHA LLW</u>	<u>Including INEEL</u> <u>ALPHA LLW</u>
Existing CH-TRU	77,400 M <sup>3</sup>	104,400 M <sup>3</sup>
% Existing of Design Capacity	44%	60%

- **Current TRU Waste Generation for 1998 was:**

**172 M<sup>3</sup> Routine**

**346 M<sup>3</sup> Cleanup**

**518 M<sup>3</sup>**

- **Low Since**

- **No New Weapons Production**
- **Pollution Prevention**
- **Waste Volume Reduction**

- **Assume 1998 Rate Continues**

$$(518) (35 \text{ years}) = 18,200 \text{ M}^3$$

**Existing + Projected = Total**

$$104,400 + 18,200 = 122,600 \text{ M}^3$$

**Which is 70% of WIPP Design Capacity**

- **Potential In Future**

- **Environmental restoration waste quantities may increase substantially**
- **80,000 M<sup>3</sup> of buried TRU waste may be candidate for disposal**