

**STATE OF NEW MEXICO
ENVIRONMENT DEPARTMENT**

**IN THE MATTER OF
U.S. DEPARTMENT OF ENERGY
AND WESTINGHOUSE TRU
SOLUTIONS LLC, CARLSBAD,
NEW MEXICO, NM4890139088,
RESPONDENTS.**

**COMPLIANCE ORDER
HWB 01-08 (CO)**

ADMINISTRATIVE COMPLIANCE ORDER

The Secretary of Environment, acting through the Director of the Water and Waste Management Division of the New Mexico Environment Department (NMED), issues this Administrative Compliance Order (Order) to the U.S. Department of Energy (DOE) and Westinghouse TRU Solutions LLC (WTS) (collectively referred to as Respondents), pursuant to the New Mexico Hazardous Waste Act (HWA), NMSA 1978 Section 74-4-10 (2000).

FINDINGS OF FACT

1. NMED is the agency within the executive branch of the government of the State of New Mexico charged with the administration and enforcement of the HWA, NMSA 1978 Section 74-4-1 et seq. (2000), and New Mexico Hazardous Waste Management Regulations (HWMR), 20.4.1 NMAC.
2. Respondents are DOE and WTS, who own and operate the Waste Isolation Pilot Plant (WIPP), a mixed waste storage and disposal facility for which a permit is required under the HWMR, 20.4.1.900 NMAC (incorporating 40 CFR §270.1(a)).
3. On October 27, 1999, NMED issued a Permit (Permit Number NM4890139088-TSDF) to the Respondents to operate a hazardous waste storage and disposal facility at WIPP.

4. DOE is an agency of the federal government and the owner and co-operator of WIPP.

5. WTS is a private corporation under contract with DOE and the co-operator of WIPP.

6. WIPP is located approximately twenty-six (26) miles east of Carlsbad in Eddy County, New Mexico.

7. From 1998 through 2001, NMED issued numerous enforcement letters against Respondents pursuant to the HWA and the HWMR. In 1998 and 1999, NMED inspected WIPP, discovered violations of the HWMR, 20.4.1 NAC, and issued letters of violation. In 1999, NMED issued a compliance order against Respondents (CO 99-05), which sought compliance and assessed civil penalties. In 2001, NMED discovered violations of the HWMR, 20.4.1 NMAC, and issued a notice of violation (NOV 2001).

8. The violations cited in the enforcement actions set forth above included, but were not limited to the following: inadequate hazardous waste determination (CO 99-05), failure to obtain a general waste analysis that complies with 40 CFR §265.13(a) (CO 99-05), storing and disposing hazardous waste without following the written waste analysis plan (CO 99-05), submitting and putting into effect permit modifications that failed to meet the requirements for Class 1 modifications listed in Appendix I of 40 CFR 270.42 (NOV 2001), and failure to manage, store and dispose of waste as required by Permit Conditions II.C.1 Waste Analysis Plan, IV.B.2.b Prohibited Waste, and 40 CFR §264.13 (NOV 2001).

9. As a result of the compliance order described above, Respondents entered into a stipulated final order to compromise and settle the matter.

PERMIT CONDITIONS NOT MET

10. 20.4.1.900 - .901 NMAC (incorporating 40 CFR §270.30(a)) requires the Permittees to comply with all conditions of their permit.
11. Permit Condition II.B.1 stipulates that the Respondents may only receive TRU mixed waste from those sites which comply with the applicable requirements of the Waste Analysis Plan (WAP) specified in Permit Condition II.C.1 and as verified through the Respondents' Audit and Surveillance Program specified in Permit Condition II.C.2.
12. On September 28, 2000 and prior to shipping waste to WIPP, the Respondents concluded Audit A-00-16 to evaluate LANL's retrievably stored debris waste characterization program and to verify compliance with the Permit WAP requirements.
13. On or about November 2, 2000, DOE submitted the first Final Audit Report for LANL (Audit A-00-16).
14. On January 8, 2001, NMED withheld approval of the Final Audit Report for LANL (Audit A-00-16) until the Respondents submitted additional information demonstrating full implementation of WAP requirements.
15. On or about February 1, 2001, DOE submitted a revised Final Audit Report for LANL, including a response to comments and additional objective evidence in support of LANL's compliance with WAP requirements.
16. On or about February 23, 2001, DOE submitted a retraction of erroneous statements made in the previous response to comments. This submittal consisted of a revised response to comments and replacement pages for the B6 checklist.

17. On or about March 5, 2001, DOE submitted a revised response concerning the calculation and reporting of Acceptable Knowledge (AK) percent accuracy, including a revised procedure and example AK accuracy report.
18. On March 16, 2001, NMED approved the Respondents' Final Audit Report for LANL (Audit A-00-16).
19. On or about April 5, 2001, DOE submitted an Approved Waste Stream Profile Form for LANL, Waste Stream Profile Number LA-TA-55-19.01.
20. On April 19, 2001, DOE commenced the shipment of Waste Stream LA-TA-55-19.01 from LANL.
21. On April 20, 2001, Respondents received and stored the initial shipment of Waste Stream LA-TA-55-19.01 at WIPP, and subsequently disposed of the initial shipment in Room 7 of Panel 1.
22. On October 26, 2001, the Respondents, accompanied by NMED staff, concluded Audit A-02-04 as the first annual recertification audit to evaluate LANL's retrievably stored debris waste characterization program and to verify continued compliance with the Permit WAP requirements.
23. During the Audit A-02-04, the Respondents' audit team determined, in the presence of NMED staff, that the headspace gas sampling and analysis procedures at LANL were inadequate and ineffective.
24. During Audit A-02-04, the Respondents' audit team identified Concern #9, which stated, "Methanol in a standard was searched against both the Appendix VIII [to 40 CFR §261] and MBS75K libraries – Appendix VIII library identified [methanol] as hydrazine, MBS75K as acetic acid, hydroxyl. Program does not have a reliable method to identify [methanol]."

25. During Audit A-02-04, the Respondents' audit team identified Concern #24, which stated, "MDLs [*Method Detection Limits*] – used incorrect student-T (used 3.143 for 7 MDL runs). Need to recalculate MDLs and generate a new spreadsheet with correct student-T." This statement indicated that the required statistical analysis was improperly performed. Concern #24 further stated, "MDL 3/8/01 – individual recovery for some compounds were outside acceptance criteria (>130%R)," where %R is percent recovery.

26. On or about November 5, 2001, the Respondents' audit team issued Corrective Action Report (CAR) No. 02-009 associated with Audit A-02-04, identifying the following five Conditions Adverse to Quality in the headspace gas sampling and analysis activities observed during the audit.

- * A. Block 9, Condition Adverse to Quality #1A stated, "The current MDLs, and those dated 3/8/01, were calculated using an incorrect Student-t factor. The factor used was for 7 samples (3.14); only four samples were analyzed and hence 4.54 should have used as the Student-t factor."
- X B. Block 9, Condition Adverse to Quality #1B stated, "Some % recoveries for individual data points used to calculate the MDLs, dated 3/8/01, were above the upper accuracy limit of 130%."
- X C. Block 9, Condition Adverse to Quality #6 stated, "During the audit the target analyte, Methanol, contained in a standard, was searched against two available libraries (Appendix VIII and MBS75K). Neither library identified the compound as Methanol (the Appendix VIII library identified Methanol as Hydrazine, and the MBS75K library identified it as acetic acid, hydroxyl)."

D. CAR No. 02-009 was classified as a significant condition adverse to quality (Block 11a).

E. CAR No. 02-009 was classified as a RCRA-related CAR (Block 11d).

27. Respondents accepted Waste Stream LA-TA-55-19.01 for storage and disposal at WIPP without ensuring that the waste met the appropriate characterization requirements of the WAP specified in Permit Condition II.C.1.

28. Waste Stream LA-TA-55-19.01 poses a significant risk to human health and the environment for several reasons, including but not limited to the release of volatile organic compounds from waste containers.

CONCLUSIONS OF LAW

29. Paragraphs 1 through 28 are hereby incorporated by reference.

30. Each Respondent is a "person" as defined in the HWA, Section 74-4.3.K, and HWMR, 20.4.1.101 NMAC (incorporating 40 CFR §260.10).

31. Respondents manage, store, and dispose hazardous waste as defined in the HWA, Section 74-4-3.I, and HWMR, 20.4.1.101 NMAC (incorporating relevant portions of 40 CFR §260.10).

32. DOE is the owner and co-operator of a permitted storage and disposal facility as defined in the HWMR, 20.4.1.101 NMAC (incorporating relevant portions of 40 CFR §260.10).

33. WTS is the co-operator of a permitted storage and disposal facility as defined in the HWMR, 20.4.1.101 NMAC (incorporating relevant portions of 40 CFR §260.10).

STORING AND DISPOSING HAZARDOUS WASTE WITHOUT FOLLOWING THE WRITTEN WASTE ANALYSIS PLAN

34. Paragraphs 1 through 33 are hereby incorporated by reference.

35. Respondents violated the HWMR, 20.4.1.500 NMAC (incorporating 40 CFR §264.13(b)), and Permit Condition II.C.1 (Waste Analysis Plan) by storing and disposing of Waste Stream LA-TA-55-19.01 without following the written WAP, including the requirement to perform adequate and effective headspace gas sampling of all containers prior to receipt and disposal at WIPP.

36. Miscalculation of the MDLs has resulted in underreporting of concentrations of volatile organic compounds in the headspace of waste containers in Waste Stream LA-TA-55-19.01, in violation of Permit Attachment B3, Section B3-1 (Method Detection Limit), Section B3-5 (Method Detection Limit), and Table B3-2 (Gas Volatile Organic Compounds Target Analyte List and Quality Assurance Objectives: Accuracy and MDL requirements).

37. Misidentification of known compounds (e.g., methanol) has resulted in potential misidentification of tentatively identified compounds (TICs) in the headspace of waste containers in Waste Stream LA-TA-55-19.01, in violation of Permit Attachment B3, Section B3-1 (Identification of Tentatively Identified Compounds) and Table B3-2 (Gas Volatile Organic Compounds Target Analyte List and Quality Assurance Objectives).

SCHEDULE OF COMPLIANCE

38. Based upon the foregoing Findings and Conclusions, Respondents are ordered to take the following corrective actions.

A. Within thirty (30) calendar days from receipt of this Order, Respondents shall provide NMED with a plan for removing from Panel 1 all disposed containers of waste stream LA-TA-55-19.01 for which headspace gas analysis was performed on or after March 8, 2001, unless the Respondents provide technical justification demonstrating that the headspace gas data for these containers has

been analyzed in compliance with the WAP. This plan shall establish a deadline for removing such disposed containers no later than one hundred eighty (180) calendar days from receipt of this order.

CIVIL PENALTY

39. The HWA, Section 74-4-10(C)(1), authorizes the Secretary to assess a civil penalty of not more than twenty five thousand dollars (\$25,000) for each day of continued noncompliance with the HWA, HWMR, and this Order. As set forth in the attached civil penalty calculation, the Secretary assesses a civil penalty of two hundred ten thousand four hundred fifty dollars (\$210,450) for the violations described above. The Secretary reserves the right to recalculate this civil penalty based on evidence of additional violations and continued noncompliance with the HWA and HWMR.

NOTICE OF OPPORTUNITY TO ANSWER AND REQUEST A HEARING

40. Respondents may request a hearing pursuant to the HWA, Section 74-4-10.H, and NMED's Adjudicatory Procedures, 20.1.5.200 NMAC, by filing a written request for hearing with the hearing clerk no later than thirty (30) calendar days from receipt of this Order. The request for hearing shall include an answer which:

- A. admits or denies each alleged finding of fact. Any alleged finding of fact that is not specifically denied shall be deemed to be admitted. Respondents may assert that they have no knowledge of any alleged finding of fact, and such finding shall be deemed to be denied;
- B. asserts any affirmative defenses upon which Respondents intend to rely. Any affirmative defense not asserted in the answer, except an affirmative defense asserting lack of subject matter jurisdiction, shall be deemed to be waived;

C. has been signed under oath or affirmation that the information contained therein is true and correct to the best of the signatory's knowledge; and

D. has attached a copy of this Order.

Respondents shall send their Answer and Request for Hearing, if any, to the hearing clerk at the following address:

Hearing Clerk
New Mexico Environment Department
P.O. Box 26110
1190 St Francis Drive
Santa Fe, New Mexico 87502-6110

Upon Respondents' request, the NMED Secretary shall hold a hearing. The hearing shall be governed by NMED's Adjudicatory Procedures, 20.1.5 NMAC (copy attached).

FINALITY OF ORDER

41. This Order shall become final unless Respondents file an Answer and Request for Hearing as specified above. Respondents' failure to file an Answer and Request for Hearing shall constitute an admission of the alleged findings of fact in this Order and a waiver of Respondents' right to a hearing under the HWA, Section 74-4-10.

SETTLEMENT CONFERENCE

42. Respondents may confer with NMED concerning settlement at any time, but such conference or request for a conference shall not extend or waive the deadline for filing an Answer and Request for Hearing as specified above. Respondents may confer regarding settlement as an alternative to, or simultaneously with, a hearing on this Order. Respondents may appear pro se or through counsel at any settlement conference.

The Secretary shall approve any settlement through a stipulated final order pursuant to the conditions set forth in NMED's Adjudicatory Procedures, 20.1.5.601 NMAC. A stipulated final

order shall be final, shall resolve all issues raised in this Order, shall bind all parties to this Order, and shall not be appealable.

To confer regarding settlement, contact:

James Bearzi
Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
(505) 428-2500

TERMINATION

43. Compliance with this Order does not relieve Respondents of their obligation to comply with all applicable laws and regulations. This Order shall terminate upon Respondents' certification of compliance with this Order and NMED's approval of such certification, or upon the NMED Secretary's approval of a stipulated final order.



GREGORY J. LEWIS, DIRECTOR
WATER AND WASTE MANAGEMENT DIVISION

DATE: 1/7/02

CERTIFICATE OF SERVICE

I certify that on January 7, 2002, I caused this Order to be sent by facsimile and first class mail, certified mail-return receipt requested, to:

Inés Triay
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221
Facsimile: (505) 234-7027

John Lee
Westinghouse TRU Solutions LLC
P.O. Box 2078
Carlsbad, NM 88220
Facsimile: (505) 234-8988

Tannis Fox

Tannis Fox

PENALTY CALCULATION WORKSHEET

Facility: Waste Isolation Pilot Plant

Citation/Violation: HWMR, 20.4.1.500 NMAC (incorporating 40 CFR 264.13(b)) - failure to follow a written waste analysis plan for Waste Stream LA-TA-55-19.01 from LANL prior to storage and disposal at WIPP

Location: WIPP

PENALTY AMOUNT:

- 1. Gravity based penalty from matrix\$6,000
 - (a). Potential for harmMajor
 - (b). Extent of deviationMinor
- 2. Amount selected from multiday matrix cell\$3,000
- 3. Multiply line 2 by number of days of noncompliance (or other appropriate number) minus 1
Number of Days: 59\$177,000
- 4. Add line 1 and line 3\$183,000
- 5. Percent increase/decrease for good faith0%
- 6. Percent increase for history of willfulness/negligence0%
- 7. Percent increase for history of noncompliance15%
- 8. Total percentage from lines 5 through 715%
- 9. Multiply line 4 by line 8\$27,450
- 10. Calculate economic benefit\$0
- 11. Add lines 4, 9, and 10 for penalty amount for this violation\$210,450

NARRATIVE EXPLANATION OF FIGURES SELECTED

1. Gravity Based Penalty

(a) Potential for harm:

While the violation poses a potentially significant risk of exposure to humans or other environmental receptors due to the underreporting of headspace gas concentrations in waste containers received for storage and disposal and the potential misidentification of tentatively identified compounds, the failure to follow a written waste analysis plan (WAP) may have a substantial adverse effect on statutory or regulatory purposes for implementing the RCRA program. Therefore a major potential for harm is deemed appropriate.

(b) Extent of Deviation:

The Respondents deviated somewhat from the requirements of the written WAP by failing to perform certain elements of the headspace gas sampling and analysis requirements as specified in the WAP. Therefore, because most of the regulatory requirements were met, a minor extent of deviation from the regulatory requirements is deemed appropriate.

2. Multiday Penalty:

A multiday penalty is presumptively appropriate for a major/minor category. The initial miscalculation of the analytical instrument method detection limit (MDL) occurred on or about March 8, 2001, and the Respondents persisted in failing to correct this error and continued to perform headspace gas sampling on at least thirty-seven (37) containers of waste stream LA-TA-55-19.01 subsequently stored at and disposed of at WIPP until at least the most recent receipt on October 26, 2001. Therefore, the allowable maximum of 59 days of noncompliance is deemed appropriate.

3. Good Faith:

The Respondents have made no effort to correct the violation. Therefore, no adjustment for good faith is deemed appropriate.

4. Negligence:

The Respondents neglected the requirement to comply with all requirements of the written WAP by failing to exercise appropriate oversight of waste characterization activities at generator sites through the surveillance process. However, because the Respondents identified the deficiency during an audit, no adjustment for negligence is deemed appropriate.

5. **History of Noncompliance:**

The Respondents have prior history of noncompliance regarding compliance with a written WAP through the Letter of Violation issued September 24, 2001, Item 2. The subject violation is a repeat violation, but resulted from noncompliance at a different generator storage site. Therefore, an increased penalty for history of noncompliance of 15% is considered appropriate.

6. **Economic Benefit (considered negligible if less than \$2500):**

The delayed cost and the amount of interest on the unspent cost of performing an adequate hazardous waste characterization is unknown at this time, but may be calculated later upon discovery of sufficient information.

Table 1
RH TRU Waste Inventory Summary Volumes

SITE NAME	RH TRU Waste Volume (m ³)			
	Stored	Projected	Total	Planned Disposal
Hanford Reservation	207.2	943.7	1,150.9	1,048.0
Idaho National Engineering and Environmental Laboratory (a)	84.0	52.0	136.0	279.0
Los Alamos National Laboratory	98.0	23.5	121.5	121.5
Oak Ridge National Laboratory	1,307.6	533.8	1,841.4	452.7
Savannah River Site (b)	1.0	0.0	1.0	1.0
Sub-Total	1,698	1,553	3,251	1902
Small-Quantity Sites				
Argonne National Laboratory - East	2.0	8.0	10.0	10.0
Argonne National Laboratory - West (c)	1.1	5.0	6.1	6.1
Battelle Columbus Laboratories (d)	20.8	0.0	20.8	20.8
Bettis Atomic Power Laboratory	2.0	0.0	2.0	2.0
Energy Technology Engineering Center (d)	8.7	0.0	8.7	8.7
GE Vallecitos Nuclear Center	11.8	0.0	11.8	11.8
Knolls Atomic Power Laboratory	3.1	6.8	9.9	9.9
Sandia National Laboratories (e)	1.5	22.0	23.5	0.0
West Valley Demonstration Project (f)	470.5	8.4	478.9	0.0
Total Waste Volume (Volumes rounded to whole number)	2,218	1,581	3799	1,972

- (a) Does not include estimated INTEC volume of approximately 900 cubic meters.
- (b) SRS may ship waste to ORNL; will be included in ORNL disposal total
- (c) ANL-W may ship to INEEL; will be included in INEEL disposal total
- (d) BCL and ETEC may ship waste to Hanford; will be included in Hanford disposal total
- (e) SNL ships waste to LANL and volume is included as LANL projected; therefore SNL volumes not included in Stored, Projected, and Total RH TRU Waste Volume values
- (f) No defense determination, therefore volume not included in disposal volumes