



**Department of Energy**

Carlsbad Area Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221  
November 29, 2000



ENTERED



Steve Zappe, WIPP Project Leader  
Hazardous Waste Permits Program  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044-A Galisteo  
Santa Fe, New Mexico 87505

RE: Notice of Class 1 Permit Modifications to the Hazardous Waste Facility Permit,  
Permit Number: NM4890139088-TSDF

Dear Mr. Zappe:

The purpose of this letter is to transmit Class 1 Permit Modifications. Pursuant to 20.4.1.900 New Mexico Administrative Code (NMAC) (incorporating 40 CFR '270.41 and 270.42), the U. S. Department of Energy, Carlsbad Field Office and the Westinghouse Government Environmental Services Company, Waste Isolation Division hereby submit this notice of a Class 1 modification to the Waste Isolation Pilot Plant Hazardous Waste Facility Permit, Permit Number: NM4890139088-TSDF.

The identified changes are minor in nature and serve to keep the permit current with facility operations. The changes do not reduce the capacity of the facility to protect human health or the environment.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Please contact Mr. Jody Plum, of my staff at (505) 234-7462 should you have any questions regarding this permit modification notice.

Dr. Inés R. Triay  
Manager

Sincerely,

J. L. Epstein  
General Manager

Enclosure

cc: w/o enclosure  
J. Bearzi, NMED  
J. Kieling, NMED  
C. Walker, Techlaw

CBFO:ORC:HLP:VW:00-1087:UFC:5486



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**Notice of RCRA Class 1 Permit Modification  
in Accordance with 20.4.1.900 NMAC  
(incorporating 40 CFR Part 270)**

**Waste Isolation Pilot Plant  
Carlsbad, New Mexico**

**November 28, 2000**

**Notice of RCRA Class 1 Permit Modification  
in Accordance with 20.4.1.900 NMAC (incorporating 40 CFR Part 270)**

Consistent with requirements of 20.4.1.900 New Mexico Administrative Code (NMAC) (hereafter referred to as Part 270 or Section 270.XX) the U.S. Department of Energy, Carlsbad Area Office is submitting to the New Mexico Environment Department (NMED) a notice of Class 1 modifications to the Hazardous Waste Facility Permit (NM4890139088-TSDF) for the Waste Isolation Pilot Plant (WIPP). Specifically, this information is provided to comply with the requirements of Section 270.42(a)(1).

The modifications are listed in Table 1. Listed information includes a reference to the applicable section of the permit, a brief description of each item, and the class of the item, as identified in Appendix I to Section 270.42. The relevant permit modification category, as identified in Appendix I, is provided as well. A more complete description of the Class 1 modifications is provided in Attachment A.

The identified changes do not reduce the capacity of the facility to protect human health or the environment and the modified permit is no less stringent than the current permit.

**Table 1. Class 1 Hazardous Waste Facility Permit Modification**

<b>No.</b>	<b>Affected Permit Section</b>	<b>Item</b>	<b>Category</b>	<b>Attachment 1 Page #</b>
1	a. Attach. F	Change the location of the Radiation Monitoring Equipment	A.1	A-5
2	a. Attach. I3	Remove inconsistencies in radiological survey apparatus.	A.1	A-6
3	a. Attach. N	Correct chemical formula	A.2	A-7
4	a. Attach. L	Change organizational name	A.1	A-8
5	a. Attach. M2	Change Permit text and figures to more accurately reflect panel design	A.1	A-10
6	a. Attach. F	Update Emergency Coordinators	A.1	A-12
7	a. Attach. F	Revise MOU regarding emergency medical services.	B.6.d	A-13
8	a. Attach. B	Revision to previously submitted modification	B.6.d	A-16
9	a.1 Table B3-5 a.2 Table B3-7	Clarify determination of retention time (RT) windows and acceptance criteria for retention time for the "GC/FID" and "GC/ECD" continuing calibration.	A..1	A-17
10	a. Attach. F	Modify RCRA Contingency Plan	B.6.d	A-18



**Attachment A**

**Descriptions of the Hazardous Waste Facility Class 1 Permit Modifications**

## **Item 1**

### **Description:**

This modification makes an administrative change to the location at which the radiation monitoring equipment will be stored

### **Basis:**

This change corrects the location at which radiation monitoring equipment will be stored. The reconfiguration of Building 412 necessitated this change.

### **Discussion:**

The reconfiguration of Building 412 forced the removal of the radiation monitoring equipment. The new location for this equipment is Building 451. Attachment F will be modified to reflect this change.

### **Revised Permit Text:**

#### **a. 1. Table F-6**

The revised Table F-6 is included within Attachment B

## **Item 2**

### **Description:**

This change is informational in order to remove inconsistencies within the Permit relative to radiological survey methods.

### **Basis:**

Currently the HWFP requires surface contamination surveys of TRUPACT II's be performed in accordance with Procedure WP 12-1100 "Radiological Surveys". This procedure stipulates that all such work be performed under a Radiation Work Permit (RWP). The RWP will only stipulate large area wipes when necessary and not as routine measures. This is inconsistent with Table I3-2 which implies these wipes be performed every time. Since the RWP is the proper mechanism, the table is being changed to assure consistency.

### **Discussion:**

Radiological surveys are conducted to determine if a release of radioactivity has occurred. The HWFP requires a surface contamination survey which is a quantitative measure of radioactive contamination. The HWFP also requires large area wipes of the same area. These large area wipes are a qualitative measure of the release of radioactivity. The surface contamination survey meets the requirements of 10 CFR § 835.1102 and the additional large area wipes add no value to the data already available.

### **Revised Permit Text:**

#### **a. 1. Table I3-2**

The revised Table I3-2 is included in Attachment B

### Item 3

**Description:**

This modification will reflect the correct chemical formula for 1,1,1 trichloroethane.

**Basis:**

The target analyte list for VOC monitoring incorrectly lists the formula for 1,1,1 trichloroethane. This modification will correct that error.

**Discussion:**

Table N-1, Target Analytes for Confirmatory VOC Monitoring During the WIPP Disposal Phase, incorrectly identifies the chemical formula for 1,1,1 trichloroethane.

**Revised Permit Text:**

a. 1. Attachment N

The Revised Table N-1 is included in Attachment B



## Item 4

### Description:

This modification is an administrative change to reflect a change in the name of a WIPP organization.

### Basis:

To maintain the HWFP current it is necessary to change portions of the HWFP when organizational changes occur. This modification is submitted for that purpose.

### Discussion:

The Quality Assurance and Regulatory Assurance Group was recently reorganized to the Quality Assurance Group and the Regulatory Assurance Group. This modification reflects those changes.

### Revised Permit Text:

#### a. 1. Attachment L - Table of Contents

L-7 Project Organization and Responsibilities .....	L-33
L-7a Environmental Monitoring Manager .....	L-33
L-7b Team Leader .....	L-34
L-7c Field Team .....	L-34
L-7d Safety Manager .....	L-34
L-7e Analytical Laboratory Management .....	L-34
L-7f Quality and Regulatory Assurance (Q&RA) Manager .....	L-35

#### a. 2. Attachment L - List of Abbreviations/Acronyms

NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
PRS	Project Records Services
Q&RA	Quality and Regulatory Assurance
QA	quality assurance
QA/QC	quality assurance/quality control
QC	quality control

#### a. 3. Attachment L-4c(3)

Data validation will be performed on behalf of the Permittees by ~~WHD~~ **The Management and Operating Contractor (MOC)** Environmental Monitoring (EM) Data validation results are documented on an Approval/Variation Request (AR/VR) form (Procedure WP 15-PC3041). If no discrepancies are found in the data, the AR/VR form will be signed and the approved box will be checked. If however, discrepancies are found, the AR/VR form will be signed and the disapproved or approved-on-condition box will be checked and the form will be

returned to the team leader accompanied by an attached report discussing the data validation results, any anomalies, and resolutions. Copies of the data validation report will be distributed to the EM Manager, Q&RA Manager, the Team Leader, and the Contract Administrator. Copies of the data validation report will be kept on file in the EM records section for review upon request by NMED.

a. 4. Attachment L-7b

The Team Leader will coordinate and oversee field sampling activities, ensuring that sampling and associated procedures will be followed and that QA/QC and safety guidelines will be met. The Team Leader will direct the DMP per written approved procedures, and initiate the review of programmatic plans and procedures. The Team Leader will review and evaluate sample data, prepare and review programmatic reports, and assure that appropriate samples will be collected and analyzed. The Team Leader will assure that adequate technical support is provided to the **Quality and Regulatory Assurance (Q&RA)** Department, when required during audits of vendor facilities. Any nonconformances or project changes will be immediately communicated to the Team Leader.

a. 5. Attachment L-7f

L-7f **Quality and Regulatory Assurance (Q&RA) Manager**

The Q&RA Manager will provide independent oversight of the DMP, via the assigned cognizant Q&RA engineer, to verify that quality objectives are defined and achieved. The Q&RA Manager will ensure objective, independent assessments of the DMP quality performance and the quality performance of the contract analytical laboratory. The Q&RA Manager has been delegated authority on behalf of the Permittees by the ~~WID~~ **MOC** General Manager and will have access to work areas, identify quality problems, initiate or recommend corrective actions, verify implementation of corrective actions, and ensure that work will be controlled or stopped until adequate disposition of an unsatisfactory condition has been implemented.

a. 6. Attachment L-8g

Inspection and surveillance activities will be conducted as outlined in WID document WP 13-1. The Q&RA Department will be responsible for performing the applicable inspections and surveillance on the scope of work. EM section personnel will be responsible for performance checks as defined in applicable procedures and determined for the Permittees by ~~WID~~ **MOC** metrology laboratory personnel. Performance checks for the DMP will determine the acceptability of purchased items and assess degradation that occurs during use. A current revision of this document will be maintained in the WIPP Operating Record.



## Item 5

### Description:

This change is informational to more accurately reflect the actual construction of the panel bulkheads.

### Basis:

The description in the HWFP is confusing and allows several options for panel bulkhead design and construction. This modifications clarifies those issues.

### Description:

This modification will delete Figure M2-10 "Typical Bulkhead Design and Components" and replace that figure with detailed text.

### Revised Permit Text:

#### a. 1. Attachment M2-2a(3)

Air will be routed into a panel from the intake side. Air is routed through the individual rooms within a panel using underground bulkheads and air regulators. Bulkheads are constructed by erecting framing of rectangular steel tubing and screwing galvanized sheet metal to the framing. ~~Figure M2-10 shows a typical bulkhead with a flow regulator installed.~~ Bulkhead members use telescoping extensions that are attached to framing and the salt which adjust to creep. Rubber or sheet metal attached to the bulkhead on one side and the salt on the other completes the seal of the ventilation. Where controlled airflow is required, a louver-style damper on a slide-gate (sliding panel) regulator is installed on the bulkhead. Personnel access is available through most bulkheads, and vehicular access is possible through selected bulkheads. Vehicle roll-up doors in the panel areas are not equipped with warning bells or strobe lights since these doors are to be used for limited periodic maintenance activities in the return air path. ~~In order to accommodate creep, bulkhead members use telescoping extensions that are attached to the framing and which can be adjusted periodically. Since bulkheads are intended to seal the ventilation system, they use either a sheet metal or rubber gasket that is attached to the bulkhead on one side and the salt on the other.~~ Flow is also controlled using brattice cloth barricades. These consist of chainlink fence that is bolted to the salt and covered with brattice cloth; and are used in instances where the only flow control requirement is to block the air. A brattice cloth air barricade is shown in Figure M2-11. Ventilation will be maintained only in all active rooms within a panel until waste emplacement activities are completed and the panel-closure system is installed. The air will be routed simultaneously through all the active rooms within the panel. The rooms that are filled with waste will be isolated from the ventilation system, while the rooms that are actively being filled will receive a minimum of 35,000 SCFM of air when workers are present to assure worker safety. After all rooms within a panel are filled, the panel will be closed using a closure system described Permit Attachment I and Permit Attachment I1.

#### a. 2. Figure M2-10

Figure M2-10 has been deleted.



## **Item 6**

### **Description:**

This modification will update the emergency coordinator list.

### **Basis:**

As required by the HWFP, changes to the emergency coordinator list must be updated as soon as possible. This modification allows that change to occur.

### **Discussion:**

As required by the HWFP, changes to the emergency coordinator list must be updated as soon as possible. This modification allows that change to occur.

### **Revised Permit Text:**

#### **a. 1. Attachment F - Table F-2**

The revised Table F-2 is included in Attachment B

## Item 7

### Description:

This modification will update the current MOU's that are in place.

### Basis:

As required by the HWFP, changes to the Contingency Plan must be updated as soon as possible. This modification allows that change to occur.

### Discussion:

This modification will update the MOU's in place for radiological treatment. This modification also deletes the dates of the MOU's. The MOU's are updated as required and a current copy of each is already in the Operating Record.

### Revised Permit Text:

#### a. 1. Attachment F-6

The MOUs with off-site cooperating agencies are available from the Permittees. A listing and description of the MOUs with state and local agencies and mining operations in the vicinity of the WIPP facility, as required by 20 ~~NMAC~~ 4.1.500 **NMAC** (incorporating 40 CFR §264.37 and §264.52(c)), are:

- An agreement among the Permittees, Mississippi Potash Inc., Western Agriculture Minerals, IMC Fertilizer, Eddy Potash Inc., and New Mexico Potash (~~June 6, 1994~~) provides for the mutual aid and assistance, in the form of MRTs, in the event of a mine disaster or other circumstance at either of the two facilities. This provision ensures that the WIPP MOC will have two MRTs available at all times when miners are underground.
- A joint powers agreement among the DOE; the City of Carlsbad, New Mexico; Eddy County, New Mexico; and the New Mexico Energy, Minerals, and Natural Resources Department for Alternate EOC (~~April 6, 1994~~) provides for the coordination of emergency plans, including the DOE emergency radiological response plans; provides for participation in periodic exercises, drills, and training; provides for establishing and maintaining an alternate EOC at the Living Desert State Park; and assigns responsibilities to the participants.
- A memorandum of agreement between the City of Carlsbad, New Mexico, and the WIPP MOC for ambulance service assistance (~~August 13, 1984~~) provides that, upon notification by the WIPP MOC, the Carlsbad Fire Department will be dispatched from Carlsbad toward the WIPP site by a designated route and will accept the transfer of patient(s) being transported by the WIPP facility ambulance at the point both ambulances meet. If the patient(s) is not transferrable, the Carlsbad Ambulance Service will provide equipment and personnel to the WIPP facility ambulance, as necessary.

- A MOU between the DOE and the Carlsbad Medical Center Emergency Radiological Treatment Center for the Waste Isolation Pilot Plant (~~February 1, 1994~~) provides for the treatment of radiologically contaminated personnel who have incurred injuries beyond the treatment capabilities at the WIPP facility. The DOE will provide transport of the patient(s) to the ~~Columbia-Lea~~ Carlsbad Medical Center Emergency Radiological Treatment Center for decontamination and medical treatment.
- A MOU between the DOE and the ~~Columbia (formerly Lea)~~ Lea Regional Hospital Radiological Treatment Center for the WIPP (~~February 15, 1995~~) provides for the treatment of radiologically contaminated personnel who have incurred injuries beyond the treatment capabilities at the WIPP facility. The DOE will provide transport of the patient(s) to the ~~Columbia-Lea~~ Regional Hospital Emergency Radiological Treatment Center for decontamination and medical treatment.
- A MOU between the DOE and the U.S. Department of Interior (DOI), represented by the Bureau of Land Management (BLM), Roswell District (~~July 19, 1994~~), provides for a fire-management program that will ensure a timely, well-coordinated, and cost-effective response to suppress wild fire within the withdrawal area using the WIPP incident commander for fire-management activities. The DOI will provide firefighting support if requested. In addition, the MOU provides for responsibilities concerning cultural resources, grazing, wildlife, mining, gas and oil production, realty/lands/rights-of-way, and reclamation.
- A mutual-aid firefighting agreement between the Eddy County Commission and the DOE (~~February 1, 1994~~) provides for the assistance of the Otis and Joel Fire Departments (a volunteer fire district created under the Eddy County Commission and the New Mexico State Fire Marshall's Office), including equipment and personnel, at any location within the WIPP Fire Protection Area upon request by an authorized representative of the WIPP Project. These responsibilities are reciprocal.
- A mutual-aid agreement between the City of Hobbs and the DOE (~~December 3, 1993~~) provides for mutual ambulance, medical, fire, rescue, and hazardous material response services; provides for joint annual exercises; provides for use of WIPP facility radio frequencies by the City of Hobbs during emergencies; and provides for mutual security and law enforcement services, within the appropriate jurisdiction limits of each party.
- A mutual-aid agreement between the City of Carlsbad and the DOE (~~November 24, 1993~~) provides for mutual ambulance, medical, fire, rescue, and hazardous material response services; provides for joint annual exercises; provides for use of WIPP facility radio frequencies by the City of Carlsbad during emergencies; and provides for mutual security and law enforcement services, within the appropriate jurisdiction limits of each party.



- A MOU between the DOE and the New Mexico Department of Public Safety (DPS) concerning Mutual Assistance and Emergency Management (~~March 19, 1992~~) applies to any actual or potential emergency or incident that: 1) involves a significant threat to employees of the Permittees or general public; 2) involves property under the control or jurisdiction of either the DOE or the State; 3) involves a threat to the environment which is reportable to an off-site agency; 4) requires the combined resources of the DOE and the state; 5) requires a resource that the DOE has which the State does not have, or a resource the State has which DOE does not have; or 6) involves any other incident for which a joint determination has been made by the DOE and the State that the provisions of this MOU will apply. The MOU provides that the DPS shall permit qualified and security cleared DOE Emergency Management members into the State EOC for the purpose of: a) coordinating communications functions; b) evaluating and maintaining communications capabilities; c) participating in exercises; d) link the State's High Frequency radio communications network with the DOE; and e) assisting the State during radioactive materials accidents that require joint operations or the use of the DOE Radiological Assistance Program team. The DOE shall permit qualified and security cleared members the State Emergency Management community into the DOE's EOCs for the purposes of coordinating communications and activities. Additional duties for each participant are specified for assistance in incidents or emergencies.



## **Item 8**

### **Description:**

This modification will make an additional change which was inadvertently overlooked in a previous submittal.

### **Basis:**

A Class 1 modification was submitted to NMED on November 1, 2000. Item 7 of that modification submittal inadvertently neglected to change a portion of the HWFP. This modification will correct that oversight.

### **Discussion:**

A Class 1 modification was submitted to NMED on November 1, 2000. Item 7 of that modification submittal inadvertently neglected to change Section B-1c of the HWFP. This modification will correct that oversight.

### **Revised Permit Text:**

#### **a. 1. Attachment B-1c**

Containers are vented through ~~carbon-composite-particulate filters or filters with equivalent VOC dispersion characteristics~~, allowing any gases that are generated by radiolytic and microbial processes within a waste container to escape, thereby preventing over pressurization or development of conditions within the container that would lead to the development of ignitable, corrosive, reactive, or other characteristic wastes.

## Item 9

### Description:

This modification is informational in order to clarify the determination of the retention time windows and the respective acceptance criteria in Tables B3-5 and B3-7 for the "GC/FID" and "GC/ECD" calibration entries.

### Basis:

This modification is intended to clarify the determination of retention time windows and respective acceptance criteria for continuing calibration. This change does not change or remove any requirements. The change simply clarifies how the retention time windows are determined. It is an administrative and informational change required to ensure that retention times are determined as intended by EPA Methods (EPA SW-846).

### Discussion:

The acceptance criteria for continuing calibration for GC/FID and GC/ECD calibration in Tables B3-5 and B3-7 requires that the retention time (RT) fall within  $\pm 3$  standard deviation units "from" or "of" the initial calibration. To ensure that the term "initial calibration" is not confused with the initial quantitative calibrations that typically take about 4 - 8 hours, the term "initial calibration" will be changed to "initial retention time calibration per applicable SW-846 Method." Adding the reference to EPA SW-846 refers the generator to the appropriate method for determining retention time windows.

SW-846 Method 8000B, used with the chromatographic methods delineated in the permit, clearly differentiates between initial calibration and determination of retention time windows. Determination of retention time windows takes 72 hours to complete in this method. This ensures that retention time windows are not too tight and accounts for normal chromatographic variability observed during normal operating conditions and not just that observed during initial calibration. Method 8000B, Section 7.6 states the following regarding retention time window determination:

"Retention time windows are crucial to the identification of target compounds.... Tight retention time windows may result in false negatives and/or may cause unnecessary reanalysis of samples when surrogates or spiked compounds are erroneously not identified...."

### Revised Permit Text:

- a. 1. Table B3-5

The Revised Table B3-5 is included in Attachment B

- a. 2. Table B3-7

The Revised Table B3-7 is included in Attachment B

## **Item 10**

### **Description:**

Modify RCRA Contingency Plan, Attachment F, Figure F-12, WIPP Hazardous Materials Incident Report to reflect consistent identification of a responding organization.

### **Basis:**

This change allows identification of waste operations activity to the Waste Management group within the Environmental Compliance section. This change appropriately changes Environmental Compliance and Support to Environmental Compliance.

### **Discussion:**

This item is a Class 1 permit modification under Section 270.42, Appendix I, B.6.d. The most appropriate classification of this change to the permit would be as an administrative and informational change. It is a minor change to the permit and is necessary to keep it current with facility operations. This item changes a name of a responding organizational identified in the WIPP Hazardous Materials Incident Report. This item does not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment and the modified permit is no less stringent than the current permit.

### **Revised Permit Text:**

- a. The following figure is included in Attachment B  
Figure F-12, WIPP Hazardous Materials Incident Report

**Attachment B**



**Table F-6**  
**Emergency Equipment Maintained At the Waste Isolation Pilot Plant**

**TABLE F-6**  
**EMERGENCY EQUIPMENT MAINTAINED**  
**AT THE WASTE ISOLATION PILOT PLANT**

	Equipment	Description and Capabilities	Location
1	First Aid Supplies	According to General Order #35 (12) bandages, soft roller, self-adhering type—4" or 6" x 5 yards. (6) triangular bandages, 40" (1) box band-aids (1) 1 pair bandage shears (6) Trauma dressings, 30" x 10" (6) Trauma dressings, 5" x 7" (50) 4" x 4" sponges, individually wrapped and sterile (2) rolls adhesive tape (1) penlight (2) sterile burn sheets (2) oropharyngeal airways — adult (2) oropharyngeal airways — child (Ambulance #1 only) (2) oropharyngeal airways — infant (Ambulance #1 only) (1) Glucose substance (3) Occlusive dressings (1) Roll aluminum foil (6) Rigid cervical collars—2 each small, medium and large sizes (4) Cold packs (4) Heat packs (2) Bite sticks	Ambulance #1
2	First Aid Supplies	(2) Transfer sheets (2) Blankets	Ambulances #1 and #2
3	First Aid Supplies	(2) #16g angiosets (2) #18g angiosets (2) #20g angiosets (1) 1000cc LR IV fluid (1) 500cc NS IV fluid	Ambulances #1 and #2, surface rescue truck
4	General Plant Emergency Equipment		
5	Emergency Lighting	For employee rescue and evacuation, and fire/spill containment; linked to main power supply, and selectively linked to back up diesel power supply and/or battery-backed power supply	Surface and underground
6	Backup Power Sources	Two diesel generators, and battery-powered uninterruptible power supply (UPS); use limited to essential loads; manual or remote starting 1,100-kilowatt diesel generators with on-site fuel for 62% load for 3 days for selected loads; 30-minute battery capacity for essential loads	Generators are east of Safety and Emergency Services Building; UPS is located at the essential loads
8	Hoists	Hoists in Waste Shaft, Air Intake Shaft, and SH Shaft	Waste Shaft, Air Intake Shaft, SH Shaft
9	Radiation Monitoring Equipment	(5) Portable alpha and beta survey meters, portable air samplers, and portable continuous air monitors	<b>Operational Health Physics Office located in Building 442 Building 451</b>
11	Emergency Shower	For emergency flushing of contaminated individual	Surface

**Table I3-2**  
**Radiological Surveys During TRU Mixed Waste Processing**

**TABLE I3-2**  
**RADIOLOGICAL SURVEYS DURING TRU MIXED WASTE PROCESSING**

Step in TRU Mixed Waste Processing	Surface Contamination Survey	Dose Rate Survey	Large-Area Wipes
TRUPACT Outer Containment Assembly (OCA) lid interior and top of Inner Containment Vessel (ICV) lid	X		X
TRUPACT quick connect and vent port	X		
As ICV lid is raised		X	
ICV lid interior and top of payload	X		X
Payload assembly, guide tubes, standard waste box (SWB) connecting devices	X		
As payload assembly is raised, including bottom of payload		X	
After placement of payload on facility pallet	X		X

**Table N-1**  
**Target Analytes for Confirmatory VOC Monitoring During the WIPP Disposal**  
**Phase**



**Table N-1**  
**Target Analytes for Confirmatory VOC Monitoring During the WIPP**  
**Disposal Phase**

Target Analyte	Common Synonyms and Acronyms	Chemical	Molecular Weight (g/mol)	Boiling Point (°C)*
Carbon tetrachloride	Tetrachloromethane	$\text{CCl}_4$	153.8	77
Chlorobenzene	Monochlorobenzene, Benzene chloride	$\text{C}_6\text{H}_5\text{Cl}$	112.6	132
Chloroform	Trichloromethane	$\text{CHCl}_3$	119.4	61
1,1-Dichloroethylene	1,1-Dichloroethene, Vinylidene chloride, 1,1-DCE	$\text{C}_2\text{H}_2\text{Cl}_2$	96.95	31
1,2-Dichloroethane	1,2-DCA, DCA, Ethylene dichloride, EDC, sym-Dichloroethane	$\text{C}_2\text{H}_4\text{Cl}_2$	98.96	83
Methylene chloride	Dichloromethane	$\text{CH}_2\text{Cl}_2$	84.94	40
1,1,2,2-Tetrachloroethane	sym-Tetrachloroethane, Tetrachloroethane	$\text{C}_2\text{H}_2\text{Cl}_4$	167.9	147
Toluene	Methyl benzene	$\text{C}_7\text{H}_8$	92.13	111
1,1,1-Trichloroethane	1,1,1-TCA, TCA, Methyl chloroform	$\text{C}_2\text{H}_3\text{Cl}_3$	133.42	74

g/mol grams per mole  
°C Degrees Celsius

\* Handbook of Chemistry and Physics, 62nd Edition, CRC Press, 1982

**Table F-2**  
**Resource Conservation and Recovery Act Emergency Coordinators**

**TABLE F-2**  
**RESOURCE CONSERVATION AND RECOVERY ACT**  
**EMERGENCY COORDINATORS**

Name	Address*	Office Phone	Home Phone*
G. A. (Gerry) Burns (primary) <sup>1</sup>		234-8276 or 234-8635	
R. A. (Richard) Marshall (primary) <sup>1</sup>		234-8276 or 234-8695	
<del>K. (Kim) Jackson (primary)<sup>2</sup></del> R. C. (Russ) Stroble <sup>2</sup> (primary) <sup>1</sup>		<del>234-8276 or 234-8453</del> 234-8276 or 234-8554	
M. L. (Tex) Winans (primary) <sup>1</sup>		234-8276 or 234-8273	
G. L. (Garrod) Ashford <sup>2</sup>		234-8272	
M. (Mike) Proctor <sup>2</sup>		234-8457	
<del>E. R. (Ed) Flynn<sup>2</sup></del> J.E. (Joseph) Bealler <sup>2</sup>		<del>234-8272 or 234-8276</del> 234-8619	
G. L. (Gary) Kessler <sup>2</sup>		234-8326	
A. E. (Alvy) Williams <sup>2</sup>		234-8216 or 234-8276	
P. J. (Paul) Paneral <sup>2</sup>		234-8498	
M. L. (Mark) Long <sup>2</sup>		234-8107 70	
D.A. (David) Frye		234-8272 or 234-8761	

\*NOTE: Personal information (home addresses and phone numbers) has been removed from information copies of this application.

<sup>1</sup> The on-duty Facility Shift Manager is the primary RCRA Emergency Coordinator pursuant to 20.4.1.500 NMAC-4.1.500 (incorporating 40 CFR §264.52), and is designated to serve as the RCRA Emergency Coordinator.

<sup>2</sup> The on-duty Facility Operations Engineer is the alternate RCRA Emergency Coordinator and is available as needed.

**Table B3-5**  
**Summary of Laboratory Quality Control Samples and Frequencies For**  
**Volatile Organic Compound Analysis**



**TABLE B3-5**  
**SUMMARY OF LABORATORY QUALITY CONTROL SAMPLES AND**  
**FREQUENCIES FOR VOLATILE ORGANIC COMPOUND ANALYSIS**

QC Sample	Minimum Frequency	Acceptance Criteria	Corrective Action <sup>a</sup>
Method performance samples	Seven (7) samples initially and four (4) semiannually	Meet Table B3-4 QAOs	Repeat until acceptable
Laboratory duplicates <sup>b</sup>	One (1) per analytical batch	Meet Table B3-4 precision QAOs	Nonconformance if RPDs > values in Table B3-4
Laboratory blanks	One (1) per analytical batch	Analyte concentrations $\leq 3 \times$ MDLs	Nonconformance if analyte concentrations > 3 x MDLs
Matrix spikes <sup>b</sup>	One (1) per analytical batch	Meet Table B3-4 accuracy QAOs	Nonconformance if %Rs are outside the range specified in Table B3-4
Matrix spike duplicates	One (1) per analytical batch	Meet Table B3-4 accuracy and precision QAOs	Nonconformance if RPDs <del>and %Rs</del> > values <del>and %Rs outside range</del> specified in Table B3-4
Laboratory control samples	One (1) per analytical batch	<del>80-120 %R</del> Meet Table B3-4 accuracy QAO's	Nonconformance if %R < 80 or > 120
GC/MS Calibration	BFB Tune every 12 hours  5-pt. Initial Calibration initially, and as needed	Abundance criteria met as per method  Calibrate according to SW-846 Method requirements:  %RSD for CCC $\leq 30$ , %RSD for all other compounds $\leq 15\%$  Average response factor (RRF) used if %RSD $\leq 15$ , use linear regression if %RSD > 15; R or R <sup>2</sup> $\geq 0.990$ if using alternative curve  System Performance Check Compound (SPCC) minimum RRF as per SW-846 Method; RRF for all other compounds $\geq 0.01$	Repeat until acceptable

QC Sample	Minimum Frequency	Acceptance Criteria	Corrective Action <sup>a</sup>
GC/MS Calibration (continued)	Continuing Calibration every 12 hours	%D $\leq$ 20 for CCC;  SPCC minimum RRF as per SW-846 Method; RRF for all other compounds $\geq$ 0.01  RT for internal standard must be $\pm$ 30 seconds from last daily calibration, internal standard area count must be $>$ 50% and $<$ 200% of last daily calibration	Repeat until acceptable
GC/FID Calibration	3-pt. Initial Calibration initially and as needed  Continuing Calibration every 12 hours	Correlation Coefficient $\geq$ 0.990 or %RSD $\leq$ 20 for all analytes  %D or %Drift for all analytes $\leq$ 15 of expected values,  RT $\pm$ 3 standard deviations from initial RT calibration per applicable SW-846 Method	Repeat until acceptable.
Surrogate compounds	Each analytical sample	Average %R from minimum of 30 samples for a given matrix $\pm$ 3 standard deviations	Nonconformance if %R $<$ (average %R - 3 standard deviation) or $>$ (average %R + 3 standard deviation)
Blind audit samples	Samples and frequency controlled by the Solid PDP Plan	Specified in the Solid PDP Plan	Specified in the Solid PDP Plan

<sup>a</sup> Corrective Action per section B3-13 when final reported QC samples do not meet the acceptance criteria. Nonconformances do not apply to matrix related exceedances.

<sup>b</sup> May be satisfied using matrix spike duplicate; acceptance criteria applies only to concentrations greater than the PRQLs listed in Table B3-4.

MDL = Method detection limit  
 QAO = Quality assurance objective  
 PDP = Performance Demonstration Program  
 %R = Percent recovery  
 RPD = Relative percent difference

**Table B3-7**  
**Summary of Laboratory Quality Control Samples and Frequencies for Semi-Volatile Organic Compounds Analysis**

**TABLE B3-7**  
**SUMMARY OF LABORATORY QUALITY CONTROL SAMPLES AND**  
**FREQUENCIES FOR SEMI-VOLATILE ORGANIC COMPOUNDS ANALYSIS**

QC Sample	Minimum Frequency	Acceptance Criteria	Corrective Action <sup>a</sup>
Method performance samples	Seven (7) samples initially and four (4) semiannually	Meet Table B3-6 QAOs	Repeat until acceptable
Laboratory duplicates <sup>b</sup>	One (1) per analytical batch	Meet Table B3-6 precision QAOs	Nonconformance if RPDs > values in Table B3-6
Laboratory blanks	One (1) per analytical batch	Analyte concentrations $\leq 3 \times$ MDLs	Nonconformance if analyte concentrations > 3 $\times$ MDLs
Matrix spikes	One (1) per analytical batch	Meet Table B3-6 accuracy QAOs	Nonconformance if RPDs and %Rs > values and %Rs outside range specified in Table B3-6
GC/MS Calibration	<p>DFTPP Tune every 12 hours</p> <p>5-pt. Initial Calibration initially, and as needed</p> <p>Continuing Calibration every 12 hours</p>	<p>Abundance criteria met as per method</p> <p>Calibrate according to SW-846 Method requirements:</p> <p>%RSD for CCC <math>\leq 30</math>,            %RSD for all other compounds <math>\leq 15\%</math>            Average response factor (RRF) used if %RSD <math>\leq 15</math>,            use linear regression if &gt;15; R or R<sup>2</sup> <math>\geq 0.990</math> if using alternative curve</p> <p>System Performance            Check Compound (SPCC) minimum RRF as per SW-846 Method; RRF for all other compounds <math>\geq 0.01</math></p> <p>%D <math>\leq 20</math> for CCC,</p> <p>SPCC minimum RRF as per SW-846 Method; RRF for all other compounds <math>\geq 0.01</math></p> <p>RT for internal standard must be <math>\pm 30</math> seconds from last daily calibration, internal standard area count must be &gt;50% and &lt;200% of last daily calibration</p>	Repeat until acceptable



QC Sample	Minimum Frequency	Acceptance Criteria	Corrective Action <sup>a</sup>
GC/ECD Calibration	<del>3-pt</del> <b>5 pt</b> . Initial Calibration initially and as needed  Continuing Calibration every 12 hours	Correlation Coefficient $\geq 0.990$ or %RSD $< 20$ for all analytes  %D or %Drift for all analytes $\leq 15$ of expected values,  RT $\pm 3$ standard deviations of initial RT calibration <b>per applicable SW-846 Method</b>	Repeat until acceptable
Matrix spike duplicates	One (1) per analytical batch	Meet Table B3-6 accuracy and precision QAOs	Nonconformance if RPDs and %Rs $>$ values in Table B3-6
Laboratory control samples	One (1) per analytical batch	<del>80-120 %Rs</del> <b>Meet Table B3-6 accuracy QAO's</b>	Nonconformance if %R $< 80$ or $> 120$
Surrogate compounds	Each analytical sample	Average %R from minimum of 30 samples from a given matrix $\pm 3$ standard deviations	Nonconformance if %R $< (\text{average \%R} - 3 \text{ standard deviations})$ or $> (\text{average \%R} + 3 \text{ standard deviations})$
Blind audit samples	Samples and frequency controlled by the Solid PDP Plan	Specified in the Solid PDP Plan	Specified in the Solid PDP Plan

<sup>a</sup> Corrective action per section B3-13 when final reported QC samples do not meet the acceptance criteria.

Nonconformances do not apply to matrix related exceedances.

<sup>b</sup> May be satisfied by using matrix spike duplicate; acceptance criteria applies only to concentrations greater than the PRQLs listed in Table B3-6.

MDL = Method Detection Limit  
 QAO = Quality Assurance Objective  
 PDP = Performance Demonstration Program  
 %R = Percent Recovery  
 RPD = Relative Percent Difference

**Figure F-12**  
**WIPP Hazardous Materials Incident Report**

WIPP HAZARDOUS MATERIAL INCIDENT REPORT				
Date: _____		Location: _____		<del>Page 1 of 3</del>
<b>I. INITIAL INFORMATION</b> DATE: _____ TIME: _____				
EST/PT: _____		REPORTED LOCATION: _____		
REPORTED BY: _____		DEPT.: _____		
INITIALLY REPORTED TO: _____		DEPT.: _____		
RESPONSIBLE MANAGER: _____		DEPT.: _____		
<b>II. WEATHER CONDITIONS</b> WIND DIRECTION _____ WIND SPEED: _____ mph TEMP.: _____ F				
CONDITIONS (i.e., icy, snowing, raining, cloudy, sunny): _____				
<b>III. TYPE OF INCIDENT</b> (SPILL, LEAK, ETC.): _____ Fire involved: [ ] YES [ ] NO (If fire is involved attach a copy of the fire report)				
<u>MATERIALS INVOLVED</u>	<u>UN/NA NO.</u>	<u>QUANTITY</u>	<u>HAZARD CLASS</u>	<u>NFPA CLASS</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
<b>IV. PERSONNEL INVOLVED IN CLEAN-UP ACTIVITIES</b>				
<u>PERSONNEL/DEPT</u>		<u>DECON METHOD/MEDICAL TREATMENT</u>		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
_____		_____		
<b>V. PERSONNEL CONTAMINATED NOT INVOLVED IN THE CLEANUP ACTIVITIES</b>				
<u>PERSONNEL/DEPT.</u>	<u>MATERIAL CONTACTED</u>	<u>DECON/MEDICAL TREATMENT</u>		
_____	_____	_____		
_____	_____	_____		
_____	_____	_____		

Figure F-12      Page 1 of 3  
WIPP Hazardous Materials Incident Report





## WIPP HAZARDOUS MATERIAL INCIDENT REPORT

Date: \_\_\_\_\_ Location: \_\_\_\_\_ Page 3 of 3

### IX. INITIAL NOTIFICATION BY CMRO

DEPARTMENT	PERSON CONTACTED	TIME	NOTIFIED BY
Facility Ops (FSM)	_____	_____	_____
Emerg. Mgmt (EST/PPT)	_____	_____	_____
EC&S	_____	_____	_____
Industrial Safety	_____	_____	_____
Facility Ops. (FM/FMD)	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

CMRO:

Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

FSM:

Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

### X. CONTINGENCY PLAN IMPLEMENTATION

Contingency Plan implemented [ ] YES [ ] NO

FSM:

Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

### XI. WASTE ~~OPERATIONS~~ MANAGEMENT

Disposition: \_\_\_\_\_

Waste ~~Operations~~ Representative:

Management \_\_\_\_\_ Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

### XII. REVIEWS

Report submitted by: \_\_\_\_\_  
Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Emergency Management Manger: \_\_\_\_\_  
Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

EC&S Manager: \_\_\_\_\_  
Print name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

COMMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_