

1
2
3
4
5
6
7
8
9
10

Class 1 Permit Modification Notification
Install Bulkheads in Underground Waste Disposal Rooms

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

Permit Number-NM4890139088-TSDF

December 2009

Table of Contents

Transmittal Letter	
Table of Contents	i
Overview of the Permit Modification Notification	1
Attachment A	A-1
Table 1. Class 1 Hazardous Waste Facility Permit Modification Notification .	A-2
Item 1	A-3
Description	A-3
Basis	A-3
Discussion	A-3
Revised Permit Text	A-4
Attachment B	B-1

Overview of the Permit Modification Notification

This document contains a Class 1 Permit Modification Notification (**PMN**) to modify the Hazardous Waste Facility Permit (**Permit**) at the Waste Isolation Pilot Plant (**WIPP**), Permit Number NM4890139088-TSDF hereinafter referred to as the Permit.

This PMN is being submitted by the U.S. Department of Energy (**DOE**) and Washington TRU Solutions LLC (**WTS**), collectively referred to as the Permittees, in accordance with Permit Condition I.B.1 (20.4.1.900 New Mexico Administrative Code (**NMAC**) incorporating Title 40 of the Code of Federal Regulations (**CFR**) §270.42(a)). The PMN in this document is necessary to notify the New Mexico Environment Department (**NMED**) of a change that impacts the WIPP facility. This change does not reduce the ability of the Permittees to provide continued protection to human health and the environment.

The requested modification to the Permit and any related supporting documents are provided in this PMN. The proposed modification to the text of the Permit has been identified using red text and double underline, and a ~~strikeout~~ font for deleted information. All direct quotations are indicated by italicized text.

Attachment A

Description of the Class 1 Permit Modification Notification

Table 1. Class 1 Hazardous Waste Facility Permit Modification Notification

Affected Permit Section	Change Description	Category	Attachment A Page #
1. Attachment M2, Section M2-2a(3)	Allow installation of bulkheads in a filled room	A.3	A-3
2. Attachment M2, Section M2-2b	Allow installation of bulkheads in a filled room	A.3	A-4
2. Attachment M2, Figure M2-11a	Add new figure of a typical bulkhead	A.3	A-4

Item 1

Description:

Allow the installation of a bulkhead in a filled room for additional ventilation control if required.

Basis:

The change is classified as "Equipment replacement or upgrading with functionally equivalent components" and is therefore a Class 1 notification pursuant to 20.4.1.900 NMAC (incorporating 40 CFR 270.42, Appendix I, A.3).

Discussion:

The Federal Register, Volume 53, Number 188, Page 37925 (September 28, 1988) provided a justification for the use of item A.3 in Appendix I of 40 CFR §270.42. The Federal Register stated "this will allow the facility to change ancillary equipment without prior approval if the original equipment is no longer made or to take advantage of better designed products so long as the new equipment is functionally equivalent to the equipment replaced." Section 20.4.1.900 NMAC (incorporating CFR §270.2) defines "functionally equivalent component" as "a component which performs the same function or measurement and which meets or exceeds the performance specification of another component."

The Permit specifies the use of chain link and brattice cloth to restrict flow and prevent entry into filled rooms. There are circumstances where a bulkhead may be more effective in meeting these functions due to the actual conditions in the excavation.

This change will allow for the installation of a typical WIPP bulkhead in addition to the existing chain link and brattice cloth should additional ventilation control be required. For example, additional ventilation control may serve to reduce emissions of VOCs from filled rooms in active panels. No reduction in the existing ventilation requirements is requested. Sections M2-2a(3) and M2-2b are being revised. A new figure showing a typical bulkhead is being added as Figure M2-11a.

Revised Permit Text:

M2-2a(3) Subsurface Structures

Underground Ventilation System Description

Once a disposal room is filled and is no longer needed for emplacement activities, it will be barricaded against entry and isolated from the mine ventilation system by removing the air regulator bulkhead and constructing chain link/brattice cloth barricades and, if necessary, bulkheads at each end. A typical bulkhead is shown in Figure M2-11a. There is no requirement for air for these rooms since personnel and/or equipment will not be in these areas.

M2-2b Geologic Repository Process Description

CH TRU Mixed Waste Emplacement

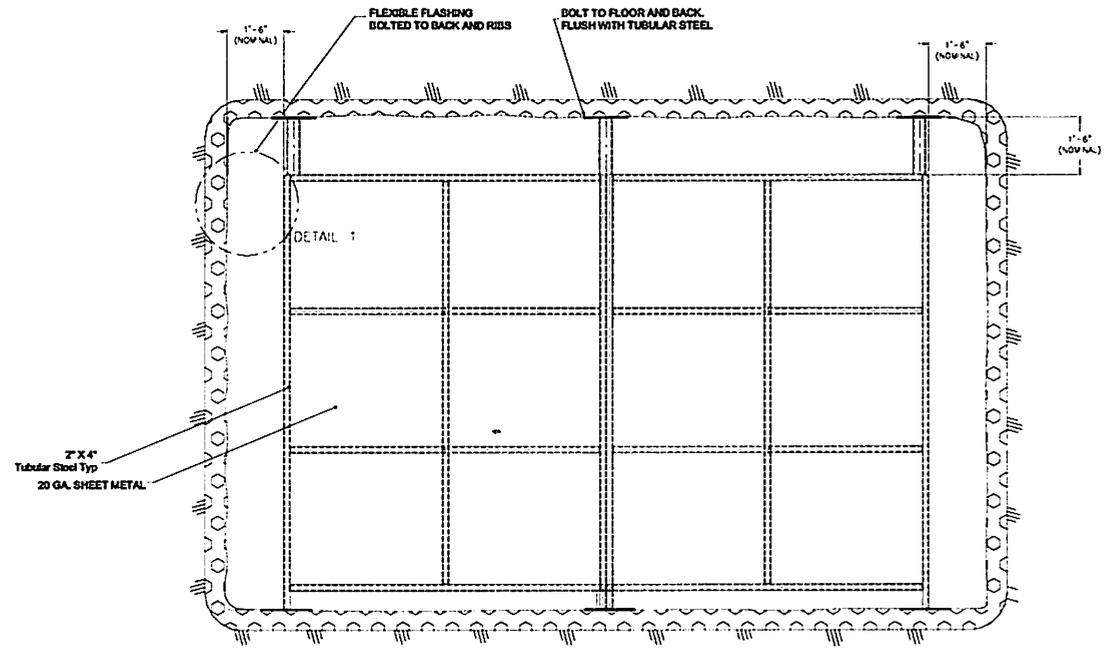
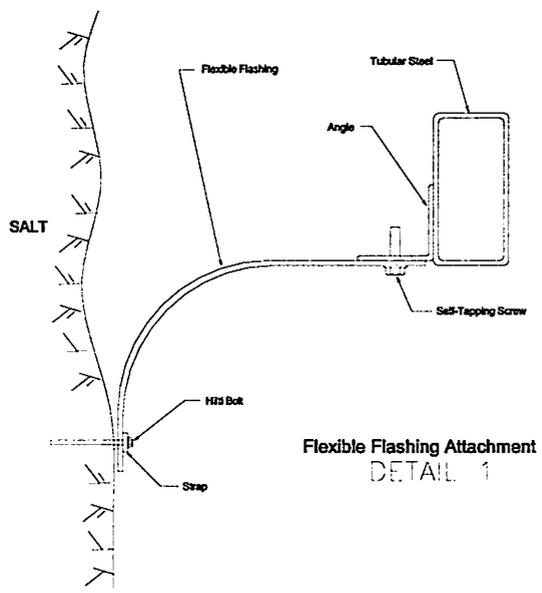
Once a waste panel is mined and any initial ground control established, flow regulators will be constructed to assure adequate control over ventilation during waste emplacement activities. The first room to be filled with waste will be Room 7, which is the one that is farthest from the main access ways. A ventilation control point will be established for Room 7 just outside the exhaust side of Room 6. This ventilation control point will consist of a bulkhead with a ventilation regulator. When RH TRU mixed waste canister emplacement is completed in a room, CH TRU mixed waste emplacement can begin in that room. Stacking of CH waste will begin at the ventilation control point and proceed down the access drift, through the room and up the intake access drift until the entrance of Room 6 is reached. At that point, a brattice cloth and chain link barricade and, if necessary, bulkheads will be emplaced. This process will be repeated for Room 6, and so on until Room 1 is filled. At that point, the panel closure system will be constructed.

Figure M2-11a Typical Bulkhead

This figure is included in Attachment B

Attachment B
Figure

Attachment B



Not to Scale. All dimensions are nominal.

Figure M2-11a
Typical Bulkhead