

Class 1 Permit Modification Notification

Revise Laboratory Accuracy Standards

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

Permit Number NM4890139088-TSDF

May 2010

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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 (40 **CFR**) §270.42(a)). The PMN in this document is necessary to notify the New Mexico Environment Department (**NMED**) of changes which impact 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 N-5a(3)	This modification clarifies that it is sufficient to analyze only a midpoint standard for every 24 hours and is consistent with the laboratory accuracy standards contained in Method TO-15.	B.2.a	A-3

Item 1

Description:

Revise Section N-5a(3) to change the laboratory accuracy standards from 12 to 24 hours to be consistent with Method TO-15 (Sections, 10.4.2, 10.6.2, 10.6.3, and 10.7).

Basis :

The change is classified as a “Changes to analytical quality assurance/control plan - to conform with agency guidance or regulations” and is therefore a Class 1 notification pursuant to 20.4.1.900 NMAC (incorporating 40 CFR 270.42, Appendix I, B.2.a).

Discussion :

Initially, Method TO-14 required midpoint calibration every 12 hours. The new Method TO-15 has clarified these accuracy standards to allow 24 hours between calibrations.

This modification clarifies that it is sufficient to analyze only a midpoint standard for every 24 hours and is consistent with the laboratory accuracy standards contained in Method TO-15, (Sections, 10.4.2, 10.6.2, 10.6.3, and 10.7).

Revised Permit Text :

N-5a(3) Evaluation of Laboratory Accuracy

Quantitative analytical accuracy will be evaluated through performance criteria on the basis of (1) relative response factors generated during instrument calibration, (2) analysis of laboratory control samples (LCS), and (3) recovery of internal standard compounds. The criteria for the initial calibration is (5-point calibration) is ≤ 30 percent relative standard deviation for target analytes. After the successful completion of the 5-point calibration, is sufficient to analyze only a midpoint standard for every ~~12~~ 24 hours of operation. The midpoint standard will pass a 30 percent difference acceptance criterion for each target compound before sample analysis may begin.

A blank spike or LCS is an internal QC sample generated by the analytical laboratory by spiking a standard air matrix (humid zero air) with a known amount of a certified reference gas. The reference gas will contain the target VOCs at known concentrations. Percent recoveries for the target VOCs will be calculated for each LCS relative to the reference concentrations. Objectives for percent recovery are listed in Table N-2, and are based on accuracy criteria proposed by the EPA for canister sampling programs (EPA, 1994). LCSs will be analyzed at a frequency of 10 percent, or one per analytical lot, whichever is more frequent.

Internal standards will be introduced into each sample analyzed, and will be monitored as a verification of stable instrument performance. In the absence of any unusual interferences, areas should not change by more than 40 percent over a ~~12~~ 24 hour period. Deviations larger than 40 percent are an indication of a potential instrument malfunction. If an internal standard area in a given sample changes by more than 40 percent, the sample will be reanalyzed. If the 40 percent criterion is not achieved during the reanalysis, the instrument will undergo a performance check and the midpoint standard will be reanalyzed to verify proper operation. Response and recovery of internal standards will also be compared between samples, LCSs, and calibration standards to identify any matrix effects on analytical accuracy.