

ENTERED

August 4, 1998

Dr. Robert S. Dinwiddie
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87505



SUBJECT: Comments on the WIPP Site RCRA Part B Permit

Dear Dr. Dinwiddie:

NFT Incorporated is a small business providing TRU waste drum headspace gas characterization services to the Department of Energy (DOE) contractors. We have designed, built, and demonstrated at the DOE-Nevada Test Site equipment that collects and analyzes TRU waste drum headspace gas samples. Our system analyzes drum headspace gases using integrated, on-line gas chromatograph/mass spectrometer analytical instruments. Our equipment has demonstrated acceptable performance to the DOE both through audit of equipment, personnel, and procedures and through successful analysis of blind Performance Demonstration Program (PDP) samples. This letter intends to provide suggestions for constructive revisions to the Permit that can result in significant savings to the government and ultimately the taxpayer, while maintaining all required rigor of characterization to meet regulatory intent. We would like to offer the following points for your consideration:

Comment: Our equipment cannot comply with the overly prescriptive method requirements described in the RCRA Part B Permit Attachment B1, "Headspace Gas Sampling Requirements". These requirements are based on a one-of-a-kind prototype system designed and developed at the Idaho National Environmental and Engineering Laboratory (INEEL). As such, the method contains specific references to the design of this one-of-a-kind sample collection system. The INEEL system differs from ours in several key areas, including the drum breach process. Each process, while differing in mechanical design details, provides the same output: TRU waste drum headspace gas data that meets all DOE-CAO data quality requirements. In fact, other approaches to headspace gas sampling and analysis, that differ from the INEEL method, are planned or implemented throughout the DOE complex.

Recommendation: Add language to the front of the RCRA Part B Permit Attachment B1, or elsewhere where appropriate, that allows performance based sampling and analysis methods (See comment 5). Either delete the method described or state that it is an example provided for guidance only, and that different methods may be employed if they successfully process a blind PDP sample and pass an audit by DOE or other involved authorities.

980803



Comment: The Field Duplicate requirement stated in Attachment B1, section B1-1b(4) and in Attachment B1, table B1-2 applies to a sample canister collection method, and does not take into account on-line, integrated sampling methodologies. The intent of the Field Duplicate is to assess both analytical and sampling method precision; our on-line equipment meets this requirement by sending a duplicate standard sample through the same piping and instrumentation as a regular headspace gas sample. This on-line, field standard duplicate provides a quantitative measure of overall sampling and analysis precision, and thereby satisfies the intent of a field duplicate. This standard duplicate must meet the Quality Assurance Objective of $\leq 25\%$ Relative Percent Difference (RPD). Table B1-2 recognizes that an on-line system reduces the number of quality control samples required. See note (a) for blank samples which states: "...For on-line integrated sampling/analysis systems, if field blank results meet the acceptance criterion, a separate on-line blank is not required." NFT Inc. requests that the same rule allowed for on-line blanks be allowed for on-line duplicates.

Recommendation: An additional note to table B1-2 should read: "For on-line integrated sampling/analysis systems, if field reference standard duplicate results meet the acceptance criterion, a separate field duplicate is not required." This change would provide more efficient headspace gas sampling and analysis operations and have no impact on data quality.

Comment: Attachment B3, "Quality Assurance Objectives and Data Validation Techniques for Waste Characterization Sampling and Analytical Methods", section B3-2, contains requirements that are overly prescriptive for the location of sample collection. As long as the drum is at equilibrium, a sample collected directly under the drum lid will be representative of gases and vapors in the drum. In this case, a sample collected in the innermost layer of confinement is not necessary, and represents increased costs and worker hazards to collect the sample. The DOE has conducted studies to determine timeframes for equilibration of TRU drum gas vapors for vented and unvented drums (i.e. sample 142 days after venting for debris wastes; sample 245 days after venting for sludge wastes).

Recommendation: Add statements to this paragraph that require headspace gas sampling after the specified equilibration period, or if this timeframe is not acceptable to generators, then the innermost layer criteria as specified apply.

Comment: Attachment B3, "Quality Assurance Objectives and Data Validation Techniques for Waste Characterization Sampling and Analytical Methods", section B3-2, contains requirements that are overly prescriptive for field duplicate collection. This section requires "simultaneous" collection of a field duplicate, when the intent is probably "sequential" in order to collect a second gas sample with the same composition as the first.

Recommendation: Delete the word "simultaneous" from the sentence; the definition of duplicate accurately conveys the intent of two samples of the same material. Add a statement to account for integrated on-line methods as follows: "For on-line integrated sampling/analysis systems, if field reference standard duplicate results meet the acceptance criterion, a separate field duplicate is not required" (see comment number 2).

Comment: Attachment B3, "Quality Assurance Objectives and Data Validation Techniques for Waste Characterization Sampling and analytical methods", section B3-5, could be improved by adding language that references current EPA RCRA analytical program policy. Specifically, the use of performance-based methods instead of "standardized" methods. Please see the Federal Register, Vol. 62, No. 114, dated June 13, 1997: "Hazardous Waste Management System; Testing and Monitoring Activities, Final Rule". This rule states that the intent of the action is to "...provide state-of-the-art analytical technologies for RCRA-related testing, thus promoting cost effectiveness and flexibility in choosing analytical test methods, as well as clarifying the RCRA Program's approach to working towards the Performance Based Measurement System (PBMS)." Elsewhere in this rule the EPA States: "Therefore, the Agency has revised the Disclaimer and Chapter Two of SW-846 to include editorial changes which explain that glassware, reagents, supplies, equipment and settings other than those specified in SW-846 may be employed, provided that method performance appropriate for the intended RCRA application is documented. Such performance includes consideration of precision, accuracy (or bias), recovery, representativeness, comparability, and sensitivity (detection, quantitation, or reporting limits) relative to the data quality objectives for the intended use of the analytical results. In other words, the Agency is following a Performance Based Measurement System (PBMS) approach where the analyst must be able to demonstrate the ability to determine the analytes of concern in the matrix(ces) of concern at the level (concentration) of concern for any particular RCRA application..."

Recommendation: Revise the comparability sections of the Quality Assurance Objectives to allow PBMS based methods. The second sentence could read: "Comparability will be achieved through use of documented Performance Based Measurement Systems or standardized methods, and traceable standards, and by requiring all sites to successfully participate in the PDP".

We sincerely hope you give our comments careful consideration, because as they stand now, they prevent a successful small business from participating in the TRU waste headspace gas characterization program. Please contact me for any questions or clarification.

Sincerely

Mark Castagneri, P.E.
Program Manager

Enc.

Cc: Gil Brassell, NFT CEO
John Warren
Steve Zappe, NMED e-mail: steve_zappe@nmenv.state.nm.us

Subject: WIPP RCRA Part B Comments

Date: Tue, 4 Aug 1998 12:10:40 EDT

From: Nftinc@aol.com

To: steve_zappe@edser.nmenv.state.nm.us

Hello Steve:

As discussed, attached are the WIPP RCRA Part B comments in WP 5.x for windows. If you have any problem reading them, please let me know and I will send again.

Thank You

Mark Castagneri, P.E.
NFT Program Manager

 <u>RCRAB.DOC</u>	Name: RCRAB.DOC Type: Microsoft Word Document (application/msword) Encoding: base64
--	--