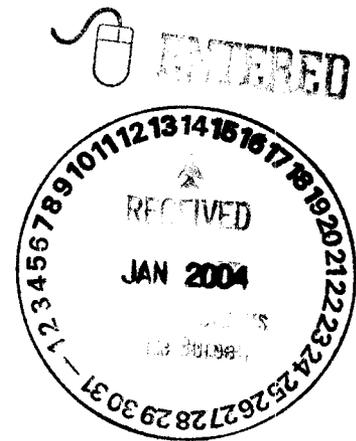




Department of Energy
 Carlsbad Field Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221
 January 8, 2004



Mr. Steve Zappe, Project Leader
 Hazardous Waste Bureau
 New Mexico Environment Department
 2905 Rodeo Park Drive East, Bldg. 1
 Santa Fe, New Mexico 87505-6303

Subject: Transmittal of the CBFO Response to NMED Comments on the Los Alamos National Laboratory Final Audit Report, Audit A-03-24

Dear Mr. Zappe:

This letter transmits the CBFO response to the letter from Sandra Y. Martin to Drs. Ines Triay and Steven Warren, NMED COMMENTS ON THE LOS ALAMOS NATIONAL LABORATORY FINAL AUDIT REPORT, AUDIT A-03-24, Waste Isolation Pilot Plant EPA I.D. Number NM4890139088, dated December 23, 2003.

A copy of the redline/strikeout annotated B-6 Checklists and Final Audit Report are enclosed.

Please contact the CBFO Quality Assurance Manager, Ava L. Holland, at (505) 234-7423 should you have any questions concerning this audit report.

Sincerely,

Dr. Ines R. Triay
 Manager

Enclosure

cc: w/o enclosure
 T. Harms, DOE-HQ *ED
 K. Watson, CBFO *ED
 A. Holland, CBFO *ED
 L. Chism, CBFO *ED
 J. Schneider, RFFO *ED
 J. Kieling, NMED *ED
 S. Martin, NMED *ED
 S. Warren, WTS *ED
 L. Greene, WRES *ED
 M. Rojo, CTAC *ED

cc: w/enclosure
 K. Dunbar, WRES
 C. Walker, Techlaw
 CBFO QA File
 CBFO M&RC



U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

RESUBMITTED FINAL AUDIT REPORT

OF THE

LOS ALAMOS NATIONAL LABORATORY
LOS ALAMOS, NEW MEXICO

WASTE CHARACTERIZATION ACTIVITIES
HEADSPACE GAS SAMPLING AND ANALYSIS

AUDIT NUMBER A-03-24

July 8 – 10, 2003



Prepared By: Thomas Putnam

Thomas Putnam, CTAC
Audit Team Leader

Date: 1-7-04

Approved By: Ava L. Holland

Ava L. Holland, CBFO
Quality Assurance Manager

Date: 1/9/04

1.0 EXECUTIVE SUMMARY

Carlsbad Field Office (CBFO) Audit A-03-24 was conducted to evaluate the adequacy, implementation, and effectiveness of headspace gas (HSG) sampling, analysis, and associated activities utilizing the Entech/Agilent system.

The audit was conducted at the Los Alamos National Laboratory (LANL) in Los Alamos, New Mexico, July 8-10, 2003. The audit team concluded that the LANL process for obtaining manual HSG samples and analyzing those samples was adequate relative to the flow-down of requirements from the Hazardous Waste Facility Permit (HWFP). The audit team also concluded that the LANL technical processes were satisfactorily implemented and effective.

The audit team identified four isolated deficiencies requiring only remedial corrective actions that were corrected during the audit (CDA). Six recommendations were offered for management consideration.

This audit report is being resubmitted to address comments provided by the New Mexico Environmental Department (NMED)

2.0 SCOPE

The scope of the audit was to evaluate the LANL processes for adequacy, implementation, and effectiveness in performing sampling, analysis, canister cleaning, sample port installation, helium leak testing, batch data report generation, and the review of the batch data associated with the Entech/Agilent system. Compliance with the WIPP HWFP Waste Analysis Plan (WAP) and selected portions of the CBFO Quality Assurance Program Document (QAPD) was also evaluated.

The following Quality Assurance (QA) elements were evaluated:

- Personnel Qualification and Training
- Measuring and Test Equipment
- Sample Control

The following characterization technical elements were evaluated:

- HSG Sampling and Analysis
- Canister Cleaning
- Sample Port Installation
- Helium Leak Testing
- Generation Data Review
- Project-level Data Verification and Validation

The evaluation of LANL documents was based on the current revisions of the following documents:

- *WIPP Hazardous Waste Facility Permit*
- *CBFO Quality Assurance Program Document, CAODOE/CBFO-94-1012*
- Related LANL technical and QA implementing procedures

3.0 AUDIT TEAM AND OBSERVERS

AUDITORS/TECHNICAL SPECIALISTS

Thomas Putnam Audit Team Leader, CTAC
Dorothy Gill Technical Specialist, CTAC

INSPECTORS/OBSERVERS

Steve Holmes New Mexico Environment Department (NMED)
Scott Webb Environmental Evaluation Group (EEG)

4.0 AUDIT PARTICIPANTS

LANL personnel participating in this audit process are identified in Attachment 1. A pre-audit meeting was held in the Oppenheimer Building on July 8, 2003. Daily meetings were held with LANL management and staff to discuss issues and potential deficiencies. The audit was concluded with a post-audit meeting held in the Oppenheimer Building on July 10, 2003.

5.0 SUMMARY OF AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The audit team concluded that the LANL technical and QA processes/procedures were adequate relative to the flow-down of requirements from the CBFO QAPD and the HWFP. The audit team also concluded the LANL technical processes were satisfactorily implemented and effective.

The audit team concluded that the defined LANL QA program elements reviewed were adequate and satisfactorily implemented in accordance with the LANL Quality Assurance Program Manual (QAMP), the LANL Quality Assurance Project Plan (QAPjP), and LANL implementing procedures for the areas evaluated. The LANL QA program in those areas was also determined to be effective. For details of corrective action reports (CARs), CDAs, observations, recommendations, and exemplary practices, see Section 6.

A summary table of audit results for each of the QA program elements and the technical processes is provided in Attachment 2. Audit activities, including the specific objective evidence reviewed, are described below. A list of procedures evaluated during the audit is included in Attachment 3.

5.2 Technical Activities

Each technical area audited is discussed in detail in the following sections. The method used to select objective evidence is also discussed and the results of the assessments are provided. The objective evidence used to assess compliance with the WAP is cited and contained in Attachment 4.

5.2.1 Table B6-1 WAP Checklist

The B6-1 WAP checklist addresses program requirements from a management perspective. It documents the verification that the waste characterization strategy, as defined in the WAP, is implemented by using controlled procedures. This audit was performed to assess LANL's ability to manually sample headspace gas using the new Entech/Agilent Headspace System. Objective evidence to evaluate the implementation of the associated characterization activities was selected and reviewed. Batch data reports, sampling records, measuring and test equipment calibrations, and training documentation for Transuranic (TRU) Waste Characterization Program (TWCP) personnel were included in the evaluation. The audit included direct observation of actual waste characterization activities (HSG sampling). Each characterization process involves:

- Collecting raw data
- Collecting quality assurance/quality control (QA/QC) information
- Reducing the data to a useable format, including a standard report
- Review of the report by the data generation facility and the site project office
- Comparing the data against program data quality objectives

The focus of the B6-1 checklist was to verify that LANL had implemented processes for the new HSG unit that covered areas from calibration of equipment through ensuring that headspace program data quality objectives were met. Items on the B6-1 checklist that are unaffected by the new sampling process are marked "NA."

During the audit, LANL demonstrated compliance with the characterization requirements of the WAP through documentation and by performing characterization activities. LANL provided documentation to support compliance with the WAP. Copies of these documents are included in Attachment 4. They include the reviewed batch data reports and measuring and test certifications.

5.2.2 Table B6-2 Solids and Soils/Gravel Sampling Checklist

LANL is currently not certified to characterize homogeneous solid or soil/gravel waste streams. These processes were not audited during Audit A-03-24.

5.2.3 Table B6-3 Acceptable Knowledge Checklist

The acceptable knowledge (AK) processes at LANL were not evaluated during Audit A-03-24. The AK processes have not changed as a result of the new Entech/Agilent Headspace System.

5.2.4 Table B6-4 Headspace Gas Checklist

Direct canister HSG sampling and associated activities were reviewed during the audit. The activities audited were documented in the following procedures:

- TWCP-DTP-1.2-069, *Installation of the NucFil HGAS Sample Port*
- TWCP-DTP-1.2-070, *Canister Cleaning Using Entech 3100 Canister Cleaning System*
- TWCP-DTP-1.2-071, *Manual Headspace Gas Sampling of LANL TRU Waste Containers*
- TWCP-DTP-1.2-072, *TRU Waste Container HGAS Analysis (Entech/Agilent)*
- TWCP-DTP-0.0-078, *Headspace GAS Sampling and Analysis Batch Data Reports Preparation (Entech/Agilent)*
- TWCP-DTP-0.0-079, *Entech Canister Gauge Leak Test*

Operators were knowledgeable with regard to their sampling duties, and the sampling processes were well organized. Batch data report generation and data validation processes were sufficiently comprehensive to meet all Waste Isolation Pilot Plant (WIPP) WAP requirements, and were well coordinated.

Successful installation of a sample port using TWCP-DTP-1.2-069, *Installation of the NucFil HGAS Sample Port*, was observed during the audit.

The areas of manual HSG sampling and sample port installation were determined to be adequate, satisfactorily implemented, and effective.

5.2.5 B6-5 Radiography Checklist

Radiography was not included in the scope of Audit A-03-24.

5.2.6 B6-6 VE Checklist

Visual examination was not included in the scope of Audit A-03-24.

6.0 CORRECTIVE ACTION REPORTS (CARs), CORRECTED DURING THE AUDIT (CDAs) OBSERVATIONS, RECOMMENDATIONS, AND EXEMPLARY PRACTICES

During the audit, the audit team may identify conditions adverse to quality (CAQ) and document such conditions on CARs.

Condition Adverse to Quality (CAQ) – An all-inclusive term used in reference to any of the following: failures, malfunctions, deficiencies, defective items, nonconformances, and technical inadequacies.

Significant Condition Adverse to Quality – A condition which, if uncorrected, could have a serious effect on safety, operability, waste confinement, TRU waste site certification, compliance demonstration, or the effective implementation of the QA program.

6.1 Corrective Action Reports (CARs)

No CARs were generated by the audit team during this audit.

6.2 Corrected During the Audit

During the audit, the audit team may identify conditions adverse to quality (CAQ). The audit team members and the audit team leader (ATL) evaluate the CAQs to determine if they require a CAR. Once a determination is made that the CAQ does not require a CAR, the audit team members, in conjunction with the ATL, determine if the CAQ is an isolated case requiring only remedial action and, therefore, can be corrected during the audit (CDA). Upon determination that the CAQ is isolated, the audit team members, in conjunction with the ATL, evaluate/verify any objective evidence/actions submitted or taken by the audited organization and determine if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been acceptably corrected, the ATL categorizes the condition as CDA.

Corrected During the Audit (CDA) – Isolated deficiencies that do not require a root cause determination or actions to preclude recurrence, and correction of the deficiency can be verified prior to the end of the audit. (Examples: one or two minor changes required to correct a procedure (isolated); one or two forms not signed or not dated (isolated); one or two individuals that have not completed a reading assignment.)

Four isolated deficiencies, requiring remedial action only, were identified during the audit and reported as CDAs. They were corrected and verified before the completion of the audit.

6.2.1 CDA 1

Operators were not following procedure TWCP-DTP-1.2-069, *Installation of the Nucfil HGAS Sample Port*. During the checking of drum thickness, it was noted that the lid measured 0.0529 and the procedure required that the pounds per square inch (psi) be set at 90 to install the sample port. However, the operator stated that he rounds up when the reading is borderline (in this case, he rounded up to 0.0530). The procedure does not allow for rounding of the measured reading.

An interim change request was implemented that added the following text to Section 7.4.13:

“If the digital ultrasonic micrometer is a model that reads out more than three figures after the decimal place for the drum thickness listed in table 1, round the number in accordance with established rounding rules.

- If the digit 5, 6, 7, 8, or 9 is dropped, increase the preceding unit by 1 unit
- If the digit 0, 1, 2, 3, or 4 is dropped, do not alter the preceding digit”

6.2.2 CDA 2

Procedure TWCP-DTP-0.0-071, *Manual Headspace Gas Sampling of LANL TRU Waste Containers*, does not contain information on how the canisters are packaged for transportation to the laboratory, nor does it specify that the chain-of-custody form (COC) for canisters sampled is completed and placed in the shipping container to be taken to the laboratory.

An interim change request was implemented that added a new Section 8.7.5, as follows: “Samples are packed in appropriately cushioned and secured packaging so as to avoid canister damage during transport to the laboratory. For each sample batch, the COC Form will be packaged together with samples.”

6.2.3 CDA 3

The temperature of the refrigerator being used to store volatile organic compound (VOC) liquid standards was measured at 1.3° centigrade (C) on July 1, 2003, and 0.8° C on July 9, 2003. Laboratory personnel stated that the standards should be stored at 4° C. Also, the storage requirement for liquid VOC standards is not specified in Procedure DTP-0.0-072.

An interim change request was implemented that added a second sentence to the bullet beginning “Custom liquid standard”. “Standards will be stored at 4° C or in accordance with manufacturer’s specifications.” The manufacturer of the standards was contacted to ensure this was acceptable.

6.2.4 CDA 4

Procedure DTP-0.0-072 does not include all of the options used to select 4-bromofluorobenzene (BFB) scans used for tuning the mass spectrometer. SW-846 Method 8260B, Section 7.3.1.1, requires the laboratory to have a documented approach to scan selection.

An interim change request was implemented that replaced the Note at the end of Section 7.4.5.2.c with the following text. “Three methods of finding passing BFB may be used. First, check the spectrum at the apex of the BFB peak. Second, average three scans, the peak apex scan, and the scans immediately preceding and following the apex. Finally, average scans through the peak. These three methods may be used

with or without background subtractions. For background subtraction, use a single scan no more than 20 scans prior to the elution of BFB. Do not background subtract part of the BFB peak.”

6.3 Observations

No observations were identified by the audit team during the audit.

6.4 Recommendations

The following recommendations are provided for management consideration.

6.4.1 Recommendation 1

After the sampling event is completed, place a suitable trip blank in the shipping container with the samples.

6.4.2 Recommendation 2

The result sheet for the continuing calibration does not show the %D for hydrogen and methane. Hence it is not possible to determine from the sheet if the continuing calibration requirements were met. It is recommended that the sheet be revised to include this information.

6.4.3 Recommendation 3

SW 846 Method 8260B, Section 5.14, states that “all standards in methanol be stored at -10° C or less.” The liquid VOC standards used by the laboratory are mixtures of pure compounds and are not dissolved in methanol. However, the standards contain methanol and it is recommended that the appropriateness of storing these standards at 4° C be investigated.

6.4.4 Recommendation 4

The results for hydrogen are reported to either 2 or 3 decimal places (e. g., batch LA03-HGAS/LA-001 hydrogen for drum 959196 was reported to 2 decimal places and that for drum 959150 was reported to 3 decimal places). A consistent reporting format should be applied.

6.4.5 Recommendation 5

The chromatograms for the quantitation reports have over-written analyte names that make them unreadable. It is recommended that the format be changed to ensure all analyte names are readable.

6.4.6 Recommendation 6

The Note on the “Gas Sample Chain of Custody” form from DTP-0.0-071 uses the words “sign and initial”. However the samplers printed their names and initials. It is

recommended that either the form be changed to allow the printing of names or the samplers be instructed to sign their names.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During the Audit
- Attachment 2: Summary Table of Audit Results
- Attachment 3: List of Procedures Audited
- Attachment 4: Objective Evidence

PERSONNEL CONTACTED DURING AUDIT A-03-07

NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Anghel, Ioana	LANL/RRES-CH		X	X
Ankon, James	LANL/RRES-WDS		X	
Bailey, James	LANL/RRES-CE			X
Burt, Jean	LANL/RRES-QA		X	
Coriz, Suzanne	LANL/RRES-CH			X
Del Signore, J.C.	LANL/Project Manager	X		X
Fernandez, Ruby Ann	LANL/RRES-CE	X		X
Garcia, Mary Ann	LANL/RRES-CE	X		X
Gibson, Yvonne	LANL/RRES-CE	X		
Hardesty, Bill	LANL/HSG	X	X	X
Hartwell, Ware	LANL/RRES-QAT			X
Huchton, Judith	LANL/RRES-CE	X		X
Humphrey, Betty	LANL/SPM	X	X	X
Lindahl, Peter	LANL/SPQAO	X		X
Lopez, Joshua	LANL/RRES-WDS		X	
Marczak, Stanislaw	LANL/RRES-CH	X	X	X
Martin, Beverly	LANL/RRES-WD			X
Miller, Scott	LANL/RRES-CH	X		
Mullen, Richard	LANL/RRES-WDS		X	
Polley, Mark	RRES-AT/TCO			X
Powell, Mark	LANL/RRES-QAT		X	X
Newell, Dorothy	LASO-OPL			X
Nunz, James	LASO-OFO			X

NAME	ORG/TITLE	PREAUDIT MEETING	CONTACTED DURING AUDIT	POST AUDIT MEETING
Riggs, Matt	LANL/RRES-CE			X
Romero, Eric	LANL.RRES-WDS		X	
Saunders, Lori	LANL/QA			X
Sullivan, Jeri	LANL/RRES-CH		X	X
Uecker, Barbara	LANL/RRES-OEIM	X		X
Velasquez, Carmen	LANL/RRES-CE	X		X
Vigil, Chris	LANL/RRES-WDS		X	
Wander, Sandy	LANL/RRES-CE	X		X

Summary Table of Audit Results

Evaluation Area	Concern Classification			QA Evaluation				
	EP	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Headspace Gas Sampling			2		4	A	S	E
Sample Control			2		2	A	S	E
Project Level V&V						A	S	E
Training						A	S	E
Measuring and Test Equipment						A	S	E
TOTALS			4		6	A	S	E

Definitions

E = Effective
 S = Satisfactory
 U = Unsatisfactory
 I = Indeterminate
 A= Adequate
 M= Marginal

CDA = Corrected During Audit
 CAR = Corrective Action Report
 Obs = Observation
 Rec = Recommendation
 EP=Exemplary Practice

PROCEDURES AUDITED DURING A-03-24

NUMBER	PROCEDURE NUMBER	TITLE
1.	TWCP-QP-1.1-003	TWCP Training
2.	TWCP-QP-1.1-010	Project Level Data Validation and Verification
3.	TWCP-QP-1.1-018	Measuring and Test Equipment
4.	TWCP-DTP-1.2-069	Installation of the NucFil HGAS Sample Port
5.	DTP-00-070	Canister Cleaning Using Entech 3100 Canister Cleaning System
6.	DTP-00-071	Manual Headspace Gas Sampling of LANL TRU Waste Containers
7.	DTP-00-072	TRU Waste Container HGAS Analysis (Entech/Agilent)
8.	DTP-00-078	Headspace Gas Sampling and Analysis Batch Data Reports Preparation (Entech/Agilent)
9.	DTP-00-079	Entech Canister Gauge Leak Test

**RESPONSES TO NMED'S COMMENTS ON THE
LOS ALAMOS NATIONAL LABORATORY (LANL) SITE
HEADSPACE GAS SAMPLING AND ANALYSIS AUDIT REPORT A-03-24**

1. Please submit electronic versions of the Audit Report and B6 checklists..

Response: There is no requirement to submit electronic versions of the Audit Report and B6 checklists. Hardcopies of these documents are required by permit so that they may be provided to the public. If electronic copies are provided there is the possibility that someone may accidentally make a change to the report or checklist, print it out and present it to the public as the official public record. In addition, there have been issues raised in the past due to the use of incompatible software. Submittal of hardcopies as required by the permit prevents this difficulty from arising again.

2. No procedure listed on the B6 checklist has a revision number associated with it.

Response: There is no requirement to submit the procedure revision number, these change frequently due to concerns identified during an audit. The sites also change these to reflect the improvement in processes. LANL is currently changing the TRU Waste procedures to reflect the new project number 2010 for the completion of the TRU Program. This is reflected in your comments listed below where the procedure numbers were not consistent.

3. There appears to be a general inconsistency in referencing the correct number for numerous procedures. Some are identified as DTP-00-0XX, DTP-1.2-0XX, QP-00-0XX, and QP-1.2-0XX. Carefully check the Audit Report and B6 Checklists to ensure proper citation. Most, but perhaps not all, instances are indicated in the comments below.

Response: The B6 Checklists have been reviewed to ensure that all procedure numbers are consistent, LANL provided new revisions during the audit that were referenced by mistake. The Audit Report was also reviewed and changes made to the Attachment 3 "Procedures Used During the Audit" to reflect the correct procedure numbers.

4. Procedures DTP-00-070, -071, -072 and -079 used as documented procedures in questions 31, 189, 195 (under G and H), 204, 220 (under E), 228, 229, 230, 231, and 232, but no applicable section numbers were given.

Response: The applicable section numbers have been provided.

5. In question 214, procedure DTP-00-071 refers to section 8.7.5, but the reference seems to be incorrect.

Response: The error has been corrected and the correct section referenced.

6. In question 220 (under C), procedure DTP-00-072 refers to section 7.6.4, but this section doesn't seem to address MDL, expressed in nanogram/liter.

Response: *The error has been corrected and the correct section referenced.*

7. Procedure DTP-00-078 was used as documented procedure in questions 18 and 220. In question 18 sections 12-15 were listed, but these sections do not appear to be in the procedure.

Response: *It should have been Attachments 12-15 of DTP-00-078, not sections. This error has been corrected.*

8. In question 220 (under C), for the sections listed for DTP-00-078, there doesn't seem to be a reference to MDLs expressed in nanogram/liter.

Response: *The error has been corrected and the correct sections referenced.*

9. In question 22, the sections listed at the bottom of the page are cut off.

Response: *The error has been corrected.*

10. Procedure DTP-1.2-064 used as a documented procedure in questions 27 and 28 was not included with the report.

Response: *This procedure should not have been used. It was not part of the limited scope of this audit. This audit was to verify the implementation and effectiveness of the headspace gas sampling and analysis, all other requirements were verified during the last recertification audit A-02-30.*

11. Procedure DTP-1.2-069 was used as a documented procedure in questions 21 and 28 (under E) but no applicable section numbers were given.

Response: *This procedure reference has been deleted, it should not have been used to document the requirements to these checklist questions.*

12. Procedures DTP-1.2-071 and DTP-1.2-072 were not sent with the report but were used as documented procedures in questions 8, 12, 13, 18, 20, 22, and 30. Were these supposed to be DTP-00-071 and DTP-00-072?

Response: *Yes they were supposed to be DTP-00-071 and DTP-00-072. These errors have been corrected on the resubmitted B6 Checklist. These are two of the procedures that were revised by LANL just prior to the audit and the correct numbers DTP-00-071 and DTP-00-072 should have been used in the B6 Checklists.*

13. Procedure QP-00-010 was also not included with the report but was used as documented procedure in questions 8, 11, 12, 17, 18, 22, 31, 36-43, 48 and 59. Maybe TWCP-QP-1.1-010, R12/IC5 was meant and if so, no section numbers were given.

Response: Yes the correct procedure number is TWCP-QP-1.1-010. This error has been corrected on the resubmitted B6 Checklist and the section numbers provided.

14. Procedure QP-1.1-010 was used as a documented procedure in questions 19, 20, 21, 27, 33-35 and 55 but no section numbers were given. In question 32, the section number is listed, but revision 0 is used when revision 12 seems to be the newest. Or is this a typographical error and references should be made to Procedure QP-00-010? If so, please reference the correct procedure and make sure the list of procedures audited is correct.

Response: The correct procedure number is TWCP-QP-1.1-010. The applicable section numbers have been provided.

15. Procedure QP-1.2-038 was used as a documented reference in question 184 but was not included with the report. .

Response: This procedure reference has been deleted as it was not part of the limited scope of this audit and should not have been used to document the requirements to this checklist questions.

16. In question 30, B and C are indicated as N/A (not applicable), are D and E also N/A?

Response: Yes they are also N/A and it has been corrected on the resubmitted B6 Checklist.



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

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RON CURRY
SECRETARY

DERRITH WATCHMAN-MOORE
DEPUTY SECRETARY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 23, 2003

Dr. Inés Triay, Manager
Carlsbad Field Office
Department of Energy
P.O. Box 3090
Carlsbad, New Mexico 88221-3090

Dr. Steven Warren, President
Washington TRU Solutions LLC
P.O. Box 2078
Carlsbad, New Mexico 88221-5608

RE: NMED COMMENTS ON THE LOS ALAMOS NATIONAL LABORATORY FINAL AUDIT REPORT, AUDIT A-03-24 WASTE ISOLATION PILOT PLANT EPA I.D. NUMBER NM4890139088

Dear Drs. Triay and Warren:

On September 3, 2003, NMED received the Final Audit Report of the Los Alamos National Laboratory (LANL) Audit Number A-03-24 (**Audit Report**), from the Department of Energy's Carlsbad Field Office (CBFO). CBFO and Washington TRU Solutions LLC (**the Permittees**) were required to submit this Audit Report under the Waste Isolation Pilot Plant (WIPP) Hazardous Waste Facility Permit as specified in Permit Condition II.C.2.c. The intended scope of this certification audit was to ensure the adequacy, implementation, and effectiveness of the LANL waste characterization processes for headspace gas sampling, analysis, and associated activities using the Entech/Agilent system relative to the requirements of the WIPP Permit. The Audit Report consisted of the following items:

- A narrative report
- Completed copies of relevant Permit Attachment B6 checklists
- List of final LANL standard operating procedures (procedures previously provided electronically)
- Items corrected during the audit
- Objective evidence examined during the audit
 - General information
 - Headspace gas

Drs. Triay and Warren
December 23, 2003
Page 2

An NMED representative observed the LANL audit on July 8 – 10, 2003. NMED has examined the Audit Report for evidence of compliance with the requirements of Permit Conditions II.C.2 (Audit and Surveillance Program) and II.C.1 (Waste Analysis Plan [WAP]). The Audit Report indicates there were no WAP-related conditions adverse to quality requiring the issuance of CBFO corrective action reports; four deficiencies requiring only remedial actions that were corrected during the audit; no observations identifying conditions that, if not controlled, could result in conditions adverse to quality; and six recommendations identifying opportunities for improvement. Attached are NMED's general comments based upon observation of the LANL audit and review of the Audit Report. These are provided to guide future audit report preparation and to assist the Permittees in understanding NMED's concerns.

NMED concludes that the Audit Report is incomplete in that it does not adequately address all elements examined during the audit. Because of this incompleteness, NMED is withholding approval of the Permittees' Final Audit Report for LANL Audit A-03-24 until the Permittees submit the additional information identified in the attached comments that demonstrate full implementation of all relevant permit requirements. Indicate revisions to any text in the Audit Report and checklists with redline/strikeout annotation.

If you have any questions regarding this matter, please contact me at (505) 428-2512.

Sincerely,



Sandra Y. Martin
Acting Chief
Hazardous Waste Bureau

SYM:soz

Attachment

cc: Charles Lundstrom, NMED WWMD
Steve Zappe, NMED HWB
Tracy Hughes, NMED OGC
Laurie King, EPA Region 6
Betsy Forinash, EPA ORIA
Connie Walker, Trinity Engineering
Matthew Silva, EEG
Don Hancock, SRI
Joni Arends, CCNS
Lindsay Lovejoy, NMAGO
File: Red WIPP '03

Attachment
Page 1

NMED COMMENTS ON THE
LOS ALAMOS NATIONAL LABORATORY (LANL)
FINAL AUDIT REPORT A-03-24

NMED's review indicated that the Audit Report showed less attention to detail than presented in previous Audit Reports and, unless remedied, this less rigorous approach to preparation could result in significant deficiencies in future Audit Reports. The body of the Audit Report appears to generally address the applicable elements. However, there are some omissions, errors, and inconsistencies including but not limited to the following items:

1. Please submit electronic versions of the Audit Report and B6 checklists.
2. No procedure listed on the B6 checklists has a revision number associated with it.
3. There appears to be a general inconsistency in referencing the correct number for numerous procedures. Some are identified as DTP-00-0XX, DTP-1.2-0XX, QP-00-0XX, and QP-1.2-0XX. Carefully check the Audit Report and B6 checklists to ensure proper citation. Most, but perhaps not all, instances are indicated in the comments below.
4. Procedures DTP-00-070, -071, -072 and -079 used as documented procedures in questions 31, 189, 195 (under G and H), 204, 220 (under E), 228, 229, 230, 231 and 232, but no applicable section numbers were given.
5. In question 214, procedure DTP-00-071 refers to section 8.7.5, but the reference seems to be incorrect.
6. In question 220 (under C), procedure DTP-00-072 refers to section 7.6.4, but the section doesn't seem to address MDLs expressed in nanogram/liter.
7. Procedure DTP-00-078 was used as documented procedure in questions 18 and 220. In question 18, sections 12-15 were listed, but these sections do not appear to be in the procedure. ATT₃
8. In question 220 (under C), for the sections listed for DTP-00-078, there doesn't seem to be a reference to MDLs expressed in nanogram/liter.
9. In question 22, the sections listed at the bottom of the page are cut off.
10. Procedure DTP-1.2-064 used as a documented procedure in questions 27 and 28 was not included with the report.
11. Procedure DTP-1.2-069 was used as a documented procedure in questions 21 and 28 (under E) but no applicable section numbers were given.

Attachment
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12. Procedures DTP-1.2-071 and DTP-1.2-072 were not sent with the report but were used as documented procedures in questions 8, 12, 13, 18, 20, 22 and 30. Were these supposed to be DTP-00-071 and DTP-00-072?
13. Procedure QP-00-010 was also not included with the report but was used as documented procedure in questions 8, 11, 12, 17, 18, 22, 31, 36-43, 48 and 59. Maybe TWCP-QP-1.1-010, R12/IC5 was meant and if so, no section numbers were given.
14. Procedure QP-1.1-010 was used as a documented procedure in questions 19, 20, 21, 27, 33-35 and 55 but no section numbers were given. In question 32, the section number is listed, but revision 0 is used when revision 12 seems to be the newest. Or is this a typographical error and references should be made to Procedure QP-00-010? If so, please reference the correct procedure and make sure the list of procedures audited is correct.
15. Procedure QP-1.2-038 was used as a documented reference in question 184 but was not included with the report.
16. In question 30, B and C are indicated as N/A (not applicable). Are D and E also N/A?