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Department of Energy
Carlsbad Field Office
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JUL 31 2018



Ms. Mary McDaniel, Manager
Quality and Contractor Assurance
Nuclear Waste Partnership LLC
P.O. Box 2078
Carlsbad, NM 88221-2078

Subject: Carlsbad Field Office Audit Report A-18-27

Dear Ms. McDaniel:

Carlsbad Field Office Audit A-18-27 was performed June 26 – 27, 2018 to evaluate the Nuclear Waste Partnership LLC Environmental Monitoring Program for Hydrogen/Methane/VOC Sampling and Analysis and Meteorology Programs. The details and conclusions from the audit team are contained in the enclosed audit report.

Two conditions adverse to quality identified during the audit resulted in issuance of two Corrective Action Reports CAR 18-044 and CAR 18-045, which were transmitted under separate cover.

The audit team concluded that, overall, the activities evaluated are adequate, satisfactorily implemented, and effective in all areas except as documented in the audit report.

If you have any questions concerning the audit report, please contact me at (575) 234-7491.

Sincerely,

Dennis Miehl
Senior Quality Assurance Specialist

Enclosure

cc: w/enclosure

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U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

AUDIT REPORT

OF THE

NUCLEAR WASTE PARTNERSHIP LLC

ENVIRONMENTAL MONITORING PROGRAMS

CARLSBAD, NEW MEXICO

AUDIT NUMBER A-18-27

June 26 – 27, 2018



Prepared by: B.J. Verret
B.J. Verret, CTAC
Audit Team Leader

Date: 7/25/2018

Approved by: Donald C. Gadbury
Donald C. Gadbury, Director
CBFO Office of Quality Assurance
Dennis Miehl, Senior Quality Assurance Specialist
CBFO Office of Quality Assurance

Date: 7-31-18

D. J. Miehl

1.0 EXECUTIVE SUMMARY

U.S. Department of Energy (DOE) Carlsbad Field Office (CBFO) Audit A-18-27 was performed to evaluate the continued adequacy, implementation, and effectiveness of the Nuclear Waste Partnership LLC (NWP) Environmental Monitoring Programs and applicable elements of the NWP Quality Assurance (QA) Program related to implementation of environmental program procedures and monitoring program activities.

The purpose of the evaluation was to verify the flow-down of upper-tier requirements through the NWP WP 13-1, *Quality Assurance Program Description* (NWP QAPD) into applicable NWP procedures, and to determine if the procedures were effectively implemented. The audit activities were conducted at the Waste Isolation Pilot Plant (WIPP), June 26 – 27, 2018.

The audit team identified two conditions adverse to quality (CAQs) during the audit, necessitating the initiation of two Corrective Action Reports (CARs). The conditions identified pertained to the lapsed qualifications for one individual performing Records Coordinator work, and a step in a procedure referencing the wrong section of the procedure (see Section 6.1, CARs 18-044 and 18-045). No observations were identified during the audit and one recommendation was offered for management consideration (see Section 6.4, Recommendation 1).

Overall, the audit team concluded that the NWP Environmental Monitoring Programs and implementing procedures evaluated, including the applicable QA program elements, are adequate in addressing the applicable upper-tier requirements. The audit team also concluded that the NWP procedures evaluated, with exception of the procedure identified in CAR 18-045, are satisfactorily implemented and effective in achieving the desired results.

2.0 SCOPE AND PURPOSE

2.1 Scope

The scope of the audit included evaluations for the continued adequacy, implementation, and effectiveness of the monitoring processes as they relate to the NWP QA Program. The following criteria were evaluated:

- Organization
- Quality Assurance Program
- Training
- Document Control and Records
- Software Quality Assurance

Monitoring Program Activities

- Volatile Organic Compounds (VOCs)

- Hydrogen and Methane
- Meteorological data handling

The evaluation of the adequacy of the NWP Monitoring Program was based on compliance with current revisions of the following documents:

- DOE/CBFO-94-1012, *Quality Assurance Program Document (CBFO QAPD)*
- DOE/WIPP-99-2194, *Waste Isolation Pilot Plant Environmental Monitoring Plan*
- WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description (NWP QAPD)*

Purpose

Audit A-18-27 was performed to verify the adequacy and implementation of the NWP Environmental Monitoring Program to upper-tier documents.

The audit team also evaluated the flow-down of upper-tier requirements through the NWP QAPD into applicable NWP plans and procedures, and determined if the plans and procedures were adequate and effectively implemented. The audit was conducted at the WIPP site, June 26 – 27, 2018.

3.0 AUDIT TEAM AND OBSERVERS

Dennis S. Miehl	CBFO QA Management Representative
Michael Stapleton	CBFO QA Representative
B.J. Verret	Audit Team Leader, CBFO Technical Assistance Contractor (CTAC)
Ricardo Chavez	Auditor, CTAC
John Fernandez	Auditor, CTAC
Paul Gomez	Auditor, CTAC
Joe Lopez	Auditor, CTAC

4.0 AUDIT PARTICIPANTS

Individuals contacted during the audit are identified in Attachment 1, Personnel Contacted During Audit A-18-27. A pre-audit meeting was held in the WIPP site Safety Building conference room on June 26, 2018. The audit was concluded with a post-audit conference in the WIPP site Safety Building conference room on June 27, 2018.

NWP documents evaluated during the audit are identified in Attachment 2, NWP Documents Evaluated During Audit A-18-27. Attachment 3 is the Summary Table of Audit A-18-27 Results. Details of the audit activities are contained in the following sections.

5.0 AUDIT RESULTS

5.1 Program Adequacy, Implementation, and Effectiveness

The following sections identify each of the Environmental Monitoring Program elements evaluated for VOCs/Hydrogen/ Methane and Meteorology during the audit. For each element, the audit team evaluated the associated implementing procedures to verify the adequate flow-down of upper-tier requirements, conducted interviews with responsible personnel, and reviewed randomly selected records to determine the effectiveness of NWP Environmental Monitoring Program implementation.

Two CAQs were identified and determined to be procedural violations and are documented as CBFO CARs 18-044 and 18-045. These are detailed in section 6.1.

No observations were reported and one recommendation was offered to management for consideration, as discussed in the applicable section of this report.

5.2 Quality Assurance Program Activities

The audit team evaluated the QA elements for organization, QA program, personnel qualification and training, and document control and records for compliance with requirements in the NWP QAPD. The evaluation results for each area audited are described below.

5.2.1 Organization

The audit team interviewed NWP Environmental Monitoring Program personnel and management personnel. The applicable section of the NWP QAPD, organizational charts, and other related documentation were reviewed to verify that an adequate organizational structure has been established to ensure the fulfillment of requirements for NWP QA and monitoring activities.

The procedures reviewed and objective evidence assembled and evaluated during the audit provided evidence that applicable requirements for establishment of an organization are adequate for compliance with upper-tier requirements; satisfactory in the implementation of these requirements; and effective in achieving the desired results.

5.2.2 Quality Assurance Program

The audit team reviewed section 1.1, Quality Assurance Program and Organization, of the NWP QAPD, to verify that it appropriately translates and provides adequate measures for ensuring the establishment and effective implementation of a QA program, and compliance with the CBFO QAPD. NWP documents, including WP 13-QA.04, *Quality Assurance Department Administrative Program*, and monitoring program implementing procedures and resulting records were examined to verify that the applicable QA program elements are sufficiently addressed for satisfactory implementation. The review covered personnel training and qualification, document and

record control, work processes, monitoring, measuring, testing, and data collection equipment, and sample control.

The audit team conducted interviews with responsible personnel and reviewed documents WP 13-1, *Quality Assurance Program Description*, relative to the Organization and Quality Assurance Program to determine the degree to which these documents adequately address upper-tier requirements. Results of the review indicate these documents adequately address upper-tier requirements.

Overall, the audit team concluded that the NWP QA Program related to Environmental Monitoring of VOCs/Hydrogen/ Methane and Meteorology activities are adequately established for compliance with upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.3 Training

The audit team reviewed implementing procedure WP 14-TR.01, *WIPP Training Program*, relative to the training and qualification of Environmental Monitoring personnel, to determine the degree to which the procedure adequately addresses upper-tier requirements. One individual from Environmental Management who performs Records Coordinator work had lapsed training. This is detailed in CAR 18-044, presented in section 6.1. The team concluded that upper-tier requirements for personnel training and qualification are adequately addressed.

During Audit A-18-27 the audit team evaluated, via personnel interviews and document review, the adequacy and effectiveness of the NWP/RES EM&H VOC/Hydrogen/Methane and Meteorology Monitoring Training and Records Management Program. Procedures WP 14-TR.01 Revision 21, *WIPP Training Program*, WP 15-RM, Revision 10, *WIPP Records Management Program*, and WP 15-RM3002, Revision 9, *Records Filing, Inventorying, Scheduling, and Dispositioning*, were reviewed for adequacy, implementation and effectiveness.

To evaluate the effectiveness of the NWP/RES EM&H VOC/Hydrogen/Methane and Meteorology Monitoring Training Program, the audit team reviewed the training records of four NWP employees who perform or could potentially perform the EM&H VOC/Hydrogen/Methane and Meteorology Monitoring work within the Program. The audit team reviewed the Training Determination Worksheets, form EA14TR3310-1-0, for procedures:

- WP 15-RM3002, *Records Filing, Inventorying, Scheduling, and Dispositioning*
- WP 12-VC1685, *Subatmospheric Air Sampling in Passivated Canisters*
- WP 12-VC3209, *VOC Monitoring Group – Data Handling and Program Reporting*

The audit team also reviewed the Instructor Evaluation and qualification records for the Resource Conservation and Recovery Act (RCRA) and Environmental Training

Instructor who provides the majority of the environmental training instruction at the WIPP site.

The audit team concluded that the NWP/RES EM&H VOC/Hydrogen/Methane and Meteorology Monitoring technical staff were adequately trained and had current qualifications to perform the work as required by the program; the Training Determinations for relevant procedures were correctly completed; Training Instructors were evaluated annually, and are adequately trained and qualified; and Lessons Learned Objectives were incorporated into the training courses. No concerns regarding the NWP/RES EM&H VOC/Hydrogen/Methane and Meteorology Monitoring Training Program were identified during this audit.

The procedures reviewed and objective evidence assembled and evaluated during the audit substantiate that, with the exception of the CAQ identified, the applicable requirements for training and qualification of personnel are adequate for compliance with the upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.4 Document Control and Records

An evaluation of the NWP/RES EM&H VOCs/Hydrogen/Methane and Meteorology Monitoring Records Management Program was performed during this audit. The evaluation included a review of the 2017 RES/EM&H VOC/Hydrogen/Methane Monitoring RIDS, including a review of the letter log associated with the 2017 RIDS. The documentation is properly stored per Document Control requirements. The RIDS dated May 17, 2017, was reviewed for the sample information stored at the WIPP site. The RIDS is correct and up to date.

Training records were reviewed and interviews were conducted. No concerns were identified during the evaluation of the NWP/RES EM&H VOC/Hydrogen/Methane and Meteorology Monitoring Records Management Program.

The procedures reviewed and objective evidence assembled and evaluated during the audit substantiate that the applicable requirements for records management are adequate for compliance with the upper-tier requirements, satisfactory in the implementation of these requirements, and effective in achieving the desired results.

5.2.5 Software Quality Assurance

The audit team evaluated the adequacy of NWP's Software Quality Assurance Program (SQAP) per WP 13-1, *Nuclear Waste Partnership LLC Quality Assurance Program Description*, with respect to the CBFO QAPD and determined that the procedure contains adequate flow-down of upper-tier requirements. The audit team evaluated NWP implementing procedures:

- WP 16-2, *Software Screening and Control*

- WP 12-VC.02, *QA Project Plan for VOC Monitoring*
- WP 12-VC.04, *QA Project Plan for Hydrogen and Methane Monitoring*
- WP 02-EM.02, *Integrated Sample Control Plan*
- WP 13-QA.04, *Quality Assurance Department Administrative Program*

The audit team met with NWP's Volatile Organic Compounds Program Manager to discuss the Software Quality Assurance Plan pertaining to the VOCs program. The audit team also met with NWP QA personnel to review the latest copy of the Controlled Software Log to ensure that the following VOC spreadsheets and databases contain appropriate identification on the controlled software log. The audit team reviewed and verified the:

- Air Toxics VOC Validation Aid
- Validation Aid 2012
- VOC Database
- VOC Database 2015 Surface

The audit team confirmed that configuration management controls, authorized access control, data recording/storing and retrieval are being conducted per SQAP requirements. The audit team verified that appropriate controls are in place to access the VOC database. Three VOC personnel (PM, scientist, ES&H tech) have access to the database through login credentials on the network. The VOC database has restricted access and when changes are made, the database requires a password to initiate changes. VOC personnel also follow WIPP's Training Program by having up-to-date qualification of software custodians. The VOC Program Manager maintains a Software custodian qualification card along with a VOC Sampling Operations qualification card.

The audit team confirmed that life cycle methodology was being conducted. The audit team reviewed VOC test plans, WP 16-2 *Software Screening and Control*, test data results, data verification and validation, and Software Installation & Checkout Forms.

Overall, the audit team concluded that SQA procedures and activities for software management and life-cycle documentation for the VOC program are adequately established for compliance with upper-tier requirements and that procedure implementation is satisfactory resulting in an effective SQA program.

5.3 Monitoring Program Activities

5.3.1 Volatile Organic Compounds

The audit team verified through interviews and field sampling activities performed by

RES EM&H that the following procedures are utilized:

- WP 02-EM.02, *Integrated Sample Control Plan*
- WP 12-VC.01, *Volatile Organic Compound Monitoring Plan*
- WP 12-VC.02, *Quality Assurance Project Plan for VOC Monitoring*
- WP 12-VC1684, *VOC Monitoring Group – Air Sampling Equipment Operations*
- WP 12-VC1685, *Subatmospheric Air Sampling in Passivated Canisters*

All procedures meet the requirements of the NWP QAPD, WP 13-1.

For the purposes of this audit the sample line inspection sheet is no longer used for sample line breakage in the WIPP underground (U/G). There has been no activity in this area since the incidents of February, 2014.

The audit team observed field activities which began with a pre-job safety briefing. The EM&H qualified Field Technician collected samples that were available at Station VOC-D, located one mile southeast of the WIPP site. There were two canisters at the location. The sample numbers were identified as 10116, and a duplicate co-located sample identified as sample 10117. The temperature was monitored at collection using an E-Omega, HH-52 handheld monitor that was calibrated 3-6-2018 and is good for one year, by Transcat, with an identification number TE0266. The sample canister 10116 has attached to it the certification tag number L5041; a Passive Air Sampling Kit (PASK) identification 7342941, A0298794-9; end date of 6-26-2018 and time of 0703; mass flow of 2.9 standard cubic centimeters per minute (sccm) and a temperature of 75F; Mass Flow Indicator, ZE0162, set to be recalled 4-23-2019; Thermometer, TE0266, set to be recalled 3-6-2019; and a Pressure Gauge, ZE0175, set for recall 10-2-2018.

The sample crew traveled back to the WIPP site and another sample was obtained at Station VOC-C, located near the effluent air from the underground adjacent to Building 489, the Training Building at the WIPP site. The sample was identified as 10115 with certification tag number L5437, indicating collection end date of 6-26-2018; cleaning date of the canister was 5-29-2018; the canister was leak checked 5-24-2018; and evacuated on date 6-1-2018. A new canister was placed at the location with sample 10118, certification tag number L5449; cleaned 5-23-2018; leak checked 5-29-2018; and evacuated on 6-1-2018.

The samples were logged on a sample data sheet with all pertinent information provided on the data sheet. This information is transcribed onto the Chain of Custody (COC) when samples are sent to the approved subcontracted laboratory. The audit team verified the contents of the Sample Canister Log maintained in Building 918. This log tracks sample number, serial number, type of sample (U/G, Disposal Room, and Surface), sample date, station number, and sampler's initials. The samples taken during this audit were taken back to the secure VOC room in Building 918 for canister pressure checks using the calibrated instruments identified above. The pressure checked for canister 10117 (field duplicate) was significantly greater than what was collected for the co-located sample 10116. The difference caused the field technician to

void the sample for this collection. Per the sampling procedure, another sample will be collected to provide a field duplicate for the batch prior to transfer to the laboratory. This is not reported as a nonconformance due to the fact that sand usually is trapped in the canister to cause a variation in the final pressure readings.

The samples are traceable to the WIPP facility on the Request for Analysis Form (RFA). The form accompanies the COC to the subcontracted laboratory. The COC does not have an indication on the form that it is owned by the WIPP site. A recommendation was made to the sampling team and management that the name of the facility be placed on the COC form to indicate where the sample came from (i.e., WIPP VOC Air Sample Chain of Custody, see Section 6.4). This would prevent laboratory confusion regarding which COC belongs to the WIPP site or another client.

The audit team reviewed completed documentation obtained from fire king file cabinets, for an underground sample that was collected in Panel 7 Room 6e. The sample was part of data package 080317 with Electronic Data Deliverable (EDD) 080317_001. The data package included a copy of the printed EDD information, the validation checklist signed by the VOC Program Manager, the RFA 5487, COC 20785 and COC 20786 for samples 9802 and co-located sample 9803. A PASK number 7342941, A0298794-9 evacuated to 2.9 in Hg (inches of mercury). The data package reviewed for this audit contained all required quality assurance and quality control checks as required by the permit. No findings in the packages had any indication of limit exceedance.

The audit team reviewed two audit reports performed in support of the RES EM&H program and the subcontracted laboratory, NWP Audit E18-01 of CEMRC and NWP 117-03 for VOC, Hydrogen, and Methane Monitoring Program. No findings were indicated in regard to the sampling facilities, with one CDA. The laboratory report indicated three findings, one CDA and two observations. There were no concerns identified regarding the quality of the information provided for the EM&H VOC Air Sampling and Analysis Program.

The data reports are compiled semi-annually and reported to the New Mexico Environment Department (NMED). The last report was sent to the NMED April 25, 2018.

Overall, the audit team concluded that EM&H personnel are well versed in the sampling of VOC samples at the WIPP site as required; the program adequately addresses upper-tier requirements; and the procedure was satisfactorily implemented and effective in meeting the requirements of the QAPD.

5.3.2 Hydrogen/Methane Monitoring:

The monitoring for hydrogen and methane has been indefinitely suspended in the disposal panels in the WIPP underground because of unsafe ground conditions

(prohibited access). The NWP program maintains WP 12-VC.03, *Hydrogen and Methane Monitoring Plan*, and WP 12-VC.04, *Quality Assurance Project Plan for Hydrogen and Methane Monitoring*.

The procedures reviewed during the audit demonstrated that the applicable requirements for hydrogen and methane monitoring activities and data validation, as well as requirements for sample control, are adequately established for compliance with the upper-tier requirements and should be satisfactorily implemented when sampling and analysis are resumed.

5.3.3 Meteorology

The audit team examined the processes which RES uses to monitor meteorological conditions. The audit team verified that the Meteorology Tower (Met Tower) contains instruments to monitor temperature and wind speed and direction at 3 levels (2 meters, 10 meters, and 50 meters), humidity, temperature delta, precipitation, dew point temperature, and atmospheric pressure. Field personnel conduct calibration verification on the measurement instrumentation twice per year using calibrated M&TE. The audit team verified calibration of the following calibration verification instrumentation:

- Humidity and Pressure Indication RH1433, calibration due 8/2/19
- LCD Laser Tachometer RM1293, calibration due 2/19/19
- Pressure Module PV1047, calibration 2/9/19
- Temperature Calibrator TE1276, calibration due 8/15/19

All required information was verified to be present on the calibration sticker on the instruments and in the calibration sheets. The audit team verified that there is a recall system to ensure instruments are not used outside of their calibration dates.

The audit team examined an adjunct procedure for meteorology, IC472000, Revision 5 TRN 5, 472-MMP-007-001, *Meteorological Instrumentation Calibration*, and noted that Section 5.4.14.2 states "Re-perform steps 5.5.6 through 5.5.12." There are no steps 5.5.6 through 5.5.12 in the procedure. The correct references are steps 5.4.6 through 5.4.12. The audit team issued CAR 18-045 covering this CAQ (see Section 6.1 for details).

Information is downloaded electronically from the Met Tower and transferred to a computer where the information is collated and information for reports is generated. The audit team examined Meteorological Monitoring Tower Monitoring Panel Data Sheets from 6/23/18 and 12/18/17. All required information was present and complete. The data is then verified and certified, corrections made as necessary, and the information is reported to the State of New Mexico.

Overall, the audit team concluded that EM&H personnel are well versed in the meteorological sampling and reporting aspects required by applicable procedures at the WIPP site; the program adequately addresses upper-tier requirements; and the

procedure was satisfactorily implemented and effective in meeting the requirements of the QAPD and NWP procedures.

6.0 CORRECTIVE ACTIONS, OBSERVATIONS, AND RECOMMENDATIONS

6.1 Corrective Action Reports

During the audit, the audit team may identify CAQs in accordance with the definitions below and document such conditions on corrective action reports (CARs).

Condition Adverse to Quality (CAQ) – Term used in reference to failures, malfunctions, deficiencies, defective items, and nonconformances.

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 Quality Assurance (QA) program.

Two CAQs necessitating the generation of two CARs were identified as a result of this audit.

CAR 18-044

ONE VOC monitoring person who is performing records coordinator (RC) duties is not current with their records coordinator qualification requirements and are not listed in the current qualified records coordinator list provided by the Records Archives.

WP 15-RM, Rev.10 Section 2.2 states "Failure of RC to attend at least two workshops in a given calendar year (starting the year following initial RC training) will result in loss of RC status."

CAR 18-045

Procedure IC472000, Revision 5, TRN 5, 472-MMP-007-001, *Meteorological Instrumentation Calibration*, Section 5.4.14.2 states "Re-perform steps 5.5.6 through 5.5.12." There are no steps 5.5.6 through 5.5.12, the correct steps are 5.4.6 through 5.4.12.

WP 13-1, Rev. 38, *Nuclear Waste Partnership LLC Quality Assurance Program Description*, Section 1.4.1 requires "Documents that specify or prescribe work shall be reviewed for adequacy, correctness, and completeness prior to approval and issuance as controlled documents."

6.2 Deficiencies Corrected During the Audit

During the audit, the audit team may identify CAQs. The audit team members and the Audit Team Leader (ATL) evaluate the CAQs to determine if they are significant.

Once a determination is made that the CAQ is not significant, the audit team member, in conjunction with the ATL, determines 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 member, in conjunction with the ATL, evaluates/verifies any objective evidence/actions submitted or taken by the audited organization and determines if the condition was corrected in an acceptable manner. Once it has been determined that the CAQ has been corrected, the ATL categorizes the condition as a CDA according to the definition below.

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

No deficiency was identified or corrected during the audit.

6.3 Observations

During the audit, the audit team may identify potential problems that should be communicated to the audited organization. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as Observations using the following definition:

Observation – A condition that, if not controlled, could result in a CAQ.

Once a determination is made, the audit team member, in conjunction with the ATL, categorizes the condition appropriately.

No Observations were identified during the audit.

6.4 Recommendations

During the audit, the audit team may identify suggestions for improvement that should be communicated to the audited organization. The audit team members, in conjunction with the ATL, evaluate these conditions and classify them as Recommendations using the following definition:

Recommendations – Suggestions that are directed toward identifying opportunities for improvement and enhancing methods of implementing requirements.

Once a determination is made, the audit team member, in conjunction with the ATL, categorizes the condition appropriately.

One Recommendation was provided to management during the audit.

Recommendation 1

The audit team recommended that the name of the facility be placed on the COC form to indicate where the sample came from (i.e., WIPP VOC Air Sample Chain of Custody). This would prevent laboratory confusion regarding which COC belongs to the WIPP site or another client.

7.0 LIST OF ATTACHMENTS

- Attachment 1: Personnel Contacted During Audit A-18-27
- Attachment 2: NWP Documents Evaluated During Audit A-18-27
- Attachment 3: Summary Table of Audit A-18-27 Results

PERSONNEL CONTACTED DURING AUDIT A-18-27				
NAME	ORGANIZATION / DEPARTMENT	PREAUDIT MEETING	CONTACTED DURING AUDIT	POSTAUDIT MEETING
Ballew, Veronica	NWP/QA	X	X	
Boatwright, Wesley	RES/EM&H	X	X	
Brewer, Danny	NWP/Metrology		X	
Davis, Jaci	NWP/ENG		X	
Garcia, Oscar	RES		X	
Hernandez, Jerome	RES/EM&H		X	
Hill, Barbara	ESH/NWP		X	
Jimenez, Richard	RES/EM&H		X	
Kruger, Cynthia	NWP/Technical Training		X	
London, Debra	NWP/M&TE		X	
Lowe, Heidi	NWP/Technical Training		X	
Martinez, David	NWP/Technical Training		X	
Rodriguez, Patricia	NWP/WCC		X	
Salness, Rick	RES/EM&H	X	X	X
Seal, Brett	RES/EM&H	X	X	X

NWP Documents Evaluated During Audit A-18-27		
Number	Document Number	Applicable NWP Document - Description / Title
1	WP 02-EM.02, Rev. 5	Integrated Sample Control Plan
2	WP 02-EM1010, Rev. 2	Field Parameter Measurements and Final Sample Collection
3	WP 02-EM1020, Rev. 6	Routine Surveillance of the Meteorological Monitoring System
4	WP 02-EM3005, Rev. 7	Meteorological Data Handling
5	WP 12-VC.01, Rev. 13	Volatile Organic Compound Monitoring Plan
6	WP 12-VC.02, Rev. 14	Quality Assurance Project Plan for Volatile Organic Compound Monitoring
7	WP 12-VC.03, Rev. 3	Hydrogen and Methane Monitoring Plan
8	WP 12-VC.04, Rev. 3	Quality Assurance Project Plan for Hydrogen and Methane Monitoring
9	WP 12-VC1684, Rev. 12	VOC Monitoring Group – Air Sampling Equipment Operations
10	WP 12-VC1685, Rev. 11	Subatmospheric Air Sampling in Passivated Canisters
11	WP 12-VC3209, Rev. 18	VOC Monitoring Group – Data Handling and Program Reporting
12	WP 13-QA.04, Rev. 22	Quality Assurance Department Administrative Program
13	WP 13-1, Rev. 38	Nuclear Waste Partnership LLC Quality Assurance Program Description
14	WP 14-TR.01, Rev. 21	WIPP Training Program
15	WP 15-RM, Rev. 10	WIPP Records Management Program
16	WP 15-RM3002, Rev. 9	Records Filing, Inventorying, Scheduling, and Dispositioning
17	WP 16-2, Rev. 16	Software Screening and Control

Summary Table of Audit A-18-27 Results

Audit Elements	Concern Classification				QA Evaluation		
	CARs	CDAs	Obs	Rec	Adequacy	Implementation	Effectiveness
Organization					A	S	E
Training, Records, & RIDS	1				A	S	E
VOC, H2, Me, and Air Sampling				1	A	S	E
Meteorology	1				A	S	E
Software Quality Assurance					A	S	E
TOTALS	2	0	0	1	A	S	E

Definitions

CDA = Corrected During Audit
 A = Adequate

CAR = Corrective Action Report
 S = Satisfactory

Rec = Recommendation
 E = Effective

Obs = Observation
 M = Marginal