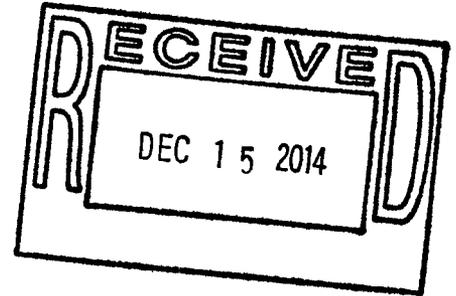




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

ENTERED



DEC 15 2014

Mike Brown
Quality Assurance Manager
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, NM 88221-3090

Dear Mr. Brown:

The U.S. Environmental Protection Agency (EPA) conducted a Quality Assurance audit of the Nuclear Waste Partnership, LLC (NWP), quality assurance (QA) program at the Carlsbad Field Office (CBFO) on July 22-24, 2014. The purpose of the audit was to determine NWP's compliance with American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA) Standard NQA-1-1989,¹ "Quality Assurance Program Requirements for Nuclear Facilities." NWP is the Department of Energy's (DOE's) management and operations (M&O) contractor for the Waste Isolation Pilot Plant (WIPP). The Central Characterization Program (CCP), a subset of NWP, is responsible for characterization of transuranic (TRU) wastes at most of the DOE TRU waste generator sites.

During this audit, the EPA audit team reviewed documents and records provided by NWP and interviewed applicable NWP personnel in Carlsbad, New Mexico. EPA QA auditors evaluated the NWP QA program against the NQA-1-1989 elements listed below to ensure compliance with EPA regulations at Title 40 of the Code of Federal Regulations (40 CFR) 194.22:

- Element 1, "Organization."
- Element 2, "Quality Assurance Program."
- Element 16, "Corrective Action."

Based on this audit, the EPA audit team determined that the NWP QA program continues to comply with these NQA-1-1989 elements and continues to have sufficient independence, authority and resources to verify the quality of items and activities that are important to long-term isolation of TRU waste. The enclosed report (EPA Docket No. A-98-49; II-A1-118; EPA-HQ-OAR-2001-0012-0447) details EPA's evaluation.

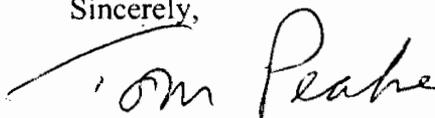
¹ 40 CFR 194.22(a)(1) states that DOE's QA program shall comply with the requirements of the 1989 version of the ASME NQA-1 standard.



EPA did not identify any nonconformances in NWP's QA program relative to the requirements of ASME NQA-1-1989. The enclosed report supports our determination. The enclosed report (EPA Docket No. A-98-49; II-A1-118; EPA-HQ-OAR-2001-0012-0447) details EPA's evaluation.

If you have any questions regarding this QA audit report, please contact Lindsey Bender at (202) 343-9479 or bender.lindsey@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tom Peake". The signature is written in a cursive style with a long horizontal stroke at the beginning.

Tom Peake, Director
Center for Waste Management and Regulations

Enclosure

cc: Electronic Distribution
Alton Harris, DOE HQ
Joe Franco, CBFO
Mike Brown, Manager, CBFO QA
Dennis Miehl, CBFO QA
Martin Navarrete, CBFO QA
Raymond Lee, EPA HQ
Nick Stone, EPA Region 6
Trais Kliphuis, NMED
Ricardo Maestas, NMED
Site Documents

DOCKET NO: A-98-49; II-A1-118
EPA Air eDocket # EPA-HQ-OAR-2001-0012-0447

**EPA AUDIT OF THE NUCLEAR WASTE PARTNERSHIP, LLC QUALITY
ASSURANCE PROGRAM**

JULY 22–24, 2014

**U. S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RADIATION AND INDOOR AIR
CENTER FOR FEDERAL REGULATIONS
WASHINGTON, DC 20460**

DECEMBER 2014

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ACRONYMS AND ABBREVIATIONS

ASME	American Society of Mechanical Engineers
CAQ	condition adverse to quality
CBFO	Carlsbad Field Office
CBFO QAPD	Carlsbad Field Office Quality Assurance Program Document
CCP	Central Characterization Program
CFR	Code of Federal Regulations
CTAC	Carlsbad Field Office Technical Assistance Contractor
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
EPA/DC	EPA Docket Center
IMPS	Issues Management Processing System
LANL-CO	Los Alamos National Laboratory-Carlsbad Office
M&O	management and operations
NCR	nonconformance report
NDE	nondestructive examination
NQA	nuclear quality assurance
NWP	Nuclear Waste Partnership, LLC
NWP QAPD	Nuclear Waste Partnership Quality Assurance Program Description
QA	quality assurance
SCAQ	significant condition adverse to quality
SNL-CO	Sandia National Laboratories-Carlsbad Office
TRU	transuranic
WIPP	Waste Isolation Pilot Plant
WJC	William Jefferson Clinton West

1.0 EXECUTIVE SUMMARY

This report presents results of the U.S. Environmental Protection Agency (EPA) audit of the Nuclear Waste Partnership, LLC (NWP), quality assurance (QA) program. EPA conducted this audit at the Carlsbad Field Office (CBFO) on July 22–24, 2014. The purpose of the audit was to determine NWP’s compliance with American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA) Standard NQA-1-1989,¹ “Quality Assurance Program Requirements for Nuclear Facilities.” NWP is the Department of Energy’s (DOE’s) management and operations (M&O) contractor for the Waste Isolation Pilot Plant (WIPP). The Central Characterization Program (CCP), a subset of NWP, is responsible for characterization of transuranic (TRU) wastes at most of the DOE TRU waste generator sites.

During this audit, the EPA audit team reviewed documents and records provided by NWP and interviewed applicable NWP personnel in Carlsbad, New Mexico. EPA QA auditors evaluated the NWP QA program against the NQA-1-1989 elements listed below to ensure compliance with EPA regulations at Title 40 of the Code of Federal Regulations (40 CFR) 194.22:

- Element 1, “Organization.”
- Element 2, “Quality Assurance Program.”
- Element 16, “Corrective Action.”

Based on this audit, the EPA audit team determined that the NWP QA program complies with these NQA-1-1989 elements and continues to have sufficient independence, authority and resources to verify the quality of items and activities that are important to long-term isolation of TRU waste.

EPA did not identify any nonconformances in NWP’s QA program relative to the requirements of ASME NQA-1-1989. This report documents these audit activities. This information will be provided through EPA’s Electronic Docket (via regulations.gov) and the official Air Docket, in accordance with Title 40 of the Code of Federal Regulation 40 CFR 194.22 (a)(1). EPA’s Air Docket A-98-49 is located at the Air and Radiation Docket in the EPA Docket Center (EPA/DC), WJC West, Room 3334, 1301 Constitution Avenue, NW, Washington, DC, 20004.

2.0 BACKGROUND

2.1 Regulatory Background

In accordance with 40 CFR 194.22(a)(1), EPA requires DOE to implement a QA plan that establishes the following NQA standards developed by ASME:

1. ASME NQA-1-1989.
2. ASME NQA-2a-1990 Addenda, Part 2.7, to ASME NQA-2-1989.
3. ASME NQA-3-1989 (excluding section 2.1(b) and (c) and section 17.1).

¹ 40 CFR 194.22(a)(1) states that DOE’s QA program shall comply with the requirements of the 1989 version of the ASME NQA-1 standard.

The regulation at 40 CFR 194.22(a)(2) requires DOE to implement its QA plan for all items and activities that are important to the long-term isolation of TRU waste within the WIPP. The regulation at 40 CFR 194.22(e) provides EPA with the authority to conduct audits to verify the proper establishment and implementation of QA programs for the WIPP.

2.2 Organizational Background

CBFO is responsible for management of the WIPP. This responsibility includes oversight of the characterization of TRU waste bound for the WIPP and emplacement of the waste at the disposal site near Carlsbad, New Mexico. As stated in the CBFO Quality Assurance Program Document (CBFO QAPD),² “The mission of the CBFO is to protect human health and the environment by operating the WIPP for safe disposal of TRU waste and by establishing an effective system for management of TRU waste from generation to disposal.”

NWP is DOE’s contractor that manages and operates the WIPP. NWP’s CCP contracts with most of the generator sites to perform TRU waste characterization activities at the sites. The NWP QA program supports all NWP activities, including WIPP site operations and CCP waste characterization activities.

NWP performs all activities supporting the WIPP under the NWP Quality Assurance Program Description (NWP QAPD),³ which incorporates the requirements of NQA-1-1989 and the CBFO QAPD.

3.0 PURPOSE AND SCOPE

The purpose of this EPA audit was to verify that the NWP QA program continues to properly implement selected elements of ASME NQA-1-1989. The scope of this EPA audit was limited to QA oversight of activities that are important to the long-term isolation of TRU waste as represented by documentation provided by NWP.

4.0 DEFINITIONS

Finding: A determination that a requirement of the NQA standards has not been properly established or implemented. A finding requires a response.

Concern: A judgment that a finding may occur in the future and, depending on the magnitude of the issue, may or may not require a response.

Quality: The reliability of a specific item or activity that is important to the long-term isolation of TRU waste in the WIPP. “Quality achievement” is the responsibility of operational groups that directly produce such an item or perform such an activity.

² Quality Assurance Program Document, U.S. Department of Energy Carlsbad Field Office, DOE/CBFO-94-1012, Revision 11, June 2010

³ Quality Assurance Program Description, Nuclear Waste Partnership LLC, WP 13-1, Revision 34, October 10, 2013

“Quality assurance/verification” is the responsibility of QA groups that do not produce such an item or perform such an activity.

5.0 EPA AUDIT LOGISTICS

5.1 Audit Schedule

On July 22–24, 2014, EPA conducted QA audits of four DOE programs working on the WIPP project in Carlsbad, New Mexico. For purposes of efficiency, EPA conducted the audits in two parallel tracks with one Lead QA Auditor responsible for each track. Track A included limited-scope audits of the CBFO QA program (see Docket No. A-98-49; II-A1-117; or eDocket EPA-HQ-OAR-2001-0012-0446) and the NWP QA program (this report). Track B completed audits of the Sandia National Laboratory-Carlsbad Office (SNL-CO) QA program (see Docket No. A-98-49; II-A1-115; or eDocket EPA-HQ-OAR-2001-0012-0444) and Los Alamos National Laboratory-Carlsbad Office (LANL-CO) QA program (see Docket No. A-98-49; II-A1-116; or eDocket EPA-HQ-OAR-2001-0012-0445), both of which had been evaluated previously with remote audits. The other members of the EPA audit team participated in all four audits. This report addresses only the results of EPA’s audit of the NWP QA program; the docket numbers cited above provide results of the other three EPA QA audits.

5.2 Team Members

The Track A audit team consisted of one EPA employee and three support contractors. Table 1 lists all members of the EPA audit team, along with each person’s affiliation and function during this audit.

Table 1. EPA Quality Assurance Audit Team Members – Track A

Audit Team Member	Audit Responsibility	Affiliation
Lindsey Bender	EPA QA Audit Team Leader	EPA
Patrick Kelly	Lead QA Auditor	SC&A, Inc.
Kira Darlow	QA Auditor	SC&A, Inc.
Karl Lindblad	QA Auditor-in-Training	SC&A, Inc.

Prior to this audit, Lindsey Bender (EPA) evaluated the qualifications of the SC&A auditors listed in Table 1. Ms. Bender found that the SC&A auditors were qualified based on their:

- Working knowledge and understanding of the NQA standards.
- Training.
- On-the-job training.

In addition, Ms. Bender evaluated the qualifications of Ms. Gill to be a Lead Auditor in oversight of DOE QA audits specific to Element 18 of NQA-1-1989 and found that she is qualified in this capacity based on her:

- Communication skills.
- Technical qualifications.

- Specific understanding of NQA-1, Element 18.

Mr. Lindblad was an auditor-in-training during this audit; his qualifications as a QA auditor will be addressed in a subsequent EPA QA audit report.

EPA held one Entrance Meeting and one Exit Meeting that included personnel from all four audited organizations, identified in Table 2. Some of these personnel may have been interviewed during one of the other three audits; however, only the personnel interviewed as part of this NWP QA audit are identified in Table 2.

Table 2. Personnel Participating in Audit Meetings

Name	Affiliation and Title/Position	Entrance Meeting	Interview	Exit Meeting
Berry Pace	CTAC, QA Programs Manager	✓		
Bill Allen	NWP, QA	✓		
Cindi Castillo	CTAC, QA Auditor/Observer	✓		✓
Dana C. Bryson	CBFO, Deputy Manager		✓	✓
Dennis Miehl	CBFO, Senior QA Specialist	✓		✓
Fran Ito	NWP	✓		
Gene Safley	SNL-CO, QA Lead	✓		
Grace Duran	SNL-CO, Records Lead			✓
Jeff Neatherlin	NWP, Underground Ops Integration Manager		✓	
Jim McVay	NWP	✓		
Laurie Smith	LANL-CO, QA Manager	✓		✓
Martin Navarrete	CBFO, Senior QA Specialist	✓		✓
Michael R. Brown	CBFO, QA Director	✓		✓
Ned Z. Elkins	LANL-CO, Program Director	✓		
Paul Shoemaker	SNL-CO, Senior Manager			✓
Porf Martinez	CTAC, Regulatory Assurance Manager	✓		
Priscilla Y. Martinez	CTAC, QA Auditor/Observer	✓		✓
Regina Sides	CBFO, QA Division			✓
Shelly R. Nielsen	SNL-CO, QA	✓		✓
Steve Davis	SNL-CO, QA Assessment Task Lead	✓		✓
Steve Kouba	URS, Manager EPA Compliance Program	✓		
Tammy Reynolds	NWP, Deputy Recovery Manager			✓
Val Cannon	NWP, QA	✓	✓	✓
Wayne Ledford	NWP, QA Specialist		✓	✓

6.0 PERFORMANCE OF THE AUDIT

The EPA audit team reviewed records provided by NWP and interviewed NWP personnel to evaluate implementation of the requirements in ASME NQA-1-1989 for the elements listed below, using NQA-1-1989 checklists. This information will be provided on line through the EPA's Electronic Docket (via regulations.gov). Hard copies can also be obtained via the Reading Room/Information Center in the Agency's Air and Radiation docket (at 1301 Constitution Ave.,

NW, Washington, DC, 20004). This in accordance with Title 40 of the Code of Federal Regulation 40 CFR 194.22 (a)(1).

- Element 1, “Organization.”
- Element 2, “Quality Assurance Program.”
- Element 16, “Corrective Action.”

EPA did not identify any nonconformances in NWP’s QA program relative to the requirements of ASME NQA-1-1989.

As recovery from the February 2014 events continues, QA oversight of the operations is especially important. During this audit, EPA evaluated selected aspects of the NWP QA program to ensure that it has the appropriate independence, authority, and resources to oversee NWP operations at the WIPP facility and at CCP waste characterization sites.

The organization chart and the organization description included in the NWP QAPD are in flux due to the recent issues identified at the WIPP repository. DOE/CBFO and NWP exchanged a series of communications indicating that organization structure will be fluid while the recent issues at the WIPP repository are remediated. EPA finds this explanation reasonable and will monitor the organizational structure of NWP QA at future audits.

The NWP WIPP Form process enables NWP to track and trend all issues, nonconformances, concerns and problems, including, but not limited to, those that are identifiable as conditions adverse to quality (CAQs) and significant conditions adverse to quality (SCAQs). A group of individuals from all areas of NWP’s operations, including NWP QA get together about once a week to discuss the submitted WIPP Forms. The WIPP Form Committee determines which trend codes to apply and whether the issue is a CAQ. The committee then assigns development and implementation of the corrective action plan to an appropriate manager. During the meeting, the QA representative also makes an initial assessment regarding whether the issue is an SCAQ; however, the final SCAQ determination is made by the NWP QA Manager. EPA observed the WIPP Form Committee meeting held on July 24, 2014.

The EPA audit team performed a document and record review for the requirements of NQA-1-1989 Elements 1, 2 and 16 and gathered objective evidence to support the proper implementation of these requirements throughout the audit as time allowed.

As a result of these audit activities, EPA determined that the NWP QA program complies with these NQA-1-1989 elements and has sufficient independence, authority and resources to verify the quality of items and activities that are important to long-term isolation of TRU waste.

7.0 FINDINGS AND CONCERNS

The EPA audit team did not identify any findings or concerns relative to the NQA-1-1989 elements discussed above.

8.0 CONCLUSIONS

The EPA audit team reviewed records and documentation and interviewed personnel to determine the compliance of the NWP QA program with ASME NQA-1-1989. Based on the sample of documentation and elements reviewed during this audit, EPA determines that NWP complies with the standard.

9.0 REFERENCES

CCP Calendar Year 2014 Surveillance/Assessment Schedule

CCP NDE Operator Training Records

CCP-PO-002, CCP Transuranic Waste Certification Plan, Revision 27, May 31, 2013

CCP-QP-002, CCP Training and Qualification Plan, Revision 37, May 12, 2014

CCP-QP-005, CCP TRU Nonconforming Item Reporting and Control, Revision 24, April 29, 2014

CCP-QP-030, Revision 9, CCP Written Practice for the Qualification of CCP Helium Leak Detection Personnel, August 12, 2013

CCP-QP-032, Revision 2, CCP Written Practice for the Qualification of CCP Pressure Change Leak Testing Personnel, August 12, 2013

Compensatory Measures Matrix for Phase III Mine Entry

Compensatory Measures Matrix for Phase III Mine Manned Entry

Copies of WIPP Form Nos. 14-111, 14-019, 14-133 and 14-200

DOE CBFO letter to NWP LLC, dated 4/11/2014, Subject: Required Compensatory Measures Plan for Phase II Mine Planned Entry

DOE Order O 232.2

IMPS report for WIPP Forms, January 1, 2010, to July 10, 2013

Inter-Office Correspondence, dated March 31, 2014 with regard to NWP Organizational Announcements

Inter-Office Correspondence, dated April 4, 2014 with regard to Contractor Assurance System Compensatory Measures

Inter-office Correspondence, WIPP Form 14-169 – Review for SCAQ

Lead Auditor Qualification Record (NQA-1-1989)

Management Assessment Report, MA-QA-2013-02

MC 1.7, WIPP Form Screening Committee, Revision 6

NWP Management Position description for Assurance Programs Manager

NWP Organization Chart, provided July 23, 2014

NWP QA Audit Plan, Audit E14-03

NWP QA Organization Chart, provided July 23, 2014

NWP QA Rolling 2-Year Independent Assessment Schedule Fiscal Year 2014/2015

Partial list of 2014 NCR Nos. and corresponding WIPP Form Nos.

Report for WIPP Forms Entered between January 1, 2014 and July 23, 2014

WIPP Form Committee Attendees, July 24, 2014

WIPP Form Meeting agenda, July 24, 2014 at 9 A.M.

WIPP QA Surveillor Authorization Card

WIPP QA Surveillor Authorization Card

WP 13-1, Quality Assurance Program Description, Revision 34, October 10, 2013

WP 13-QA.03, Quality Assurance Independent Assessment Program, Revision 22

WP 13-QA.04, Quality Assurance Department Administrative Program, Revision 21, January 30, 2014

WP 13-QA.06, Quality Assurance Department Qualification and Certification of Nondestructive Examination Personnel, Revision 9

WP 13-QA3007, External Oversight Activities, Revision 11, June 28, 2013

WP 15-GM1002, Revision 2, Issues Management, Processing of WIPP Forms, April 3, 2014