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

NOV 2 0 2018

Donald C. Gadbury
Quality Assurance Manager
Carlsbad Field Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, New Mexico 88221-3090

OFFICE OF
AIR AND RADIATION

Dear Mr. Gadbury:

The U.S. Environmental Protection Agency is transmitting results of the EPA's audit of the quality assurance (QA) program for the Advanced Mixed Waste Treatment Project (AMWTP), operated by Fluor Idaho, LLC. The EPA conducted this audit on September 18-20, 2018, at the Fluor offices located in Idaho Falls, ID. The purpose of the audit was to verify the proper establishment and implementation of selected elements of American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA) Standard NQA-1-1989, "Quality Assurance Program Requirements for Nuclear Facilities." with regards to activities affecting the long-term isolation of transuranic waste within the Waste Isolation Pilot Plant. The EPA audit team reviewed documents and records provided by Fluor personnel and interviewed the appropriate staff responsible for each area of interest. The EPA auditors evaluated AMWTP's 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 15, "Control of Nonconforming Items."
- Element 16, "Corrective Action."
- Element 17, "Quality Assurance Records."

The EPA audit team did not identify any findings or concerns during the audit. Based on this audit, the EPA has determined that the AMWTP QA program continues to comply with the 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.

If you have any questions, please contact Jerry Ellis of my staff at 202-564-2766 or at ellis.jerry@epa.gov.

Sincerely,

Tom Peake

Tom Peake, Director
Center for Waste Management and Regulations

Enclosure

cc: Electronic Distribution
Alton Harris, DOE HQ
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Jon Walsh, EPA HQ
Raymond Lee, EPA HQ
Nick Stone, EPA Region 6
Site Documents

EPA AIR E-DOCKET NO: EPA-HQ-OAR-2001-0012-0481

EPA AUDIT OF THE ADVANCED MIXED WASTE TREATMENT PROJECT QUALITY ASSURANCE PROGRAM

AUDIT NO. AUD-AMWTP-SEP-2018

SEPTEMBER 18-20, 2018

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

NOVEMBER 2018

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TABLES

ATTACHMENTS

ACRONYMS, ABBREVIATIONS AND INITIALIZATIONS

AMWTP	Advanced Mixed Waste Treatment Project
ASME	American Society of Mechanical Engineers
CAR	corrective action report
CBFO	Carlsbad Field Office
CCP	Central Characterization Program
CFR	Code of Federal Regulations
CH	contact-handled
CTAC	Carlsbad Field Office Technical Assistance Contractor
DOE	U.S. Department of Energy
ECP	employee concerns program
EM	Environmental Management
EPA	U.S. Environmental Protection Agency
ESH&Q or ESH&QA	environmental, safety, health and quality assurance
HP	health physics
HVAC	heating, ventilation and air conditioning
ICP	Idaho Cleanup Project
INEEL	Idaho National Engineering and Environmental Laboratory
INL	Idaho National Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
ISRC	INL Site Records Center
Mgr	manager
NCR	nonconformance report
NDE	nondestructive examination
NQA	nuclear quality assurance
PAAA	Price-Anderson Amendments Act
QA	quality assurance
QAPP	quality assurance project plan
RH	remote-handled
RIDS	WIPP Records Inventory and Disposition Schedule
RWMC	Radioactive Waste Management Complex
SNF	spent nuclear fuel

SPM	site project manager
TBD	to be determined
TRU	transuranic
WIPP	Waste Isolation Pilot Plant
WJC West	William Jefferson Clinton West

1.0 EXECUTIVE SUMMARY

This report provides the results of the U.S. Environmental Protection Agency's audit of the quality assurance (QA) program of the U.S. Department of Energy's (DOE's) Advanced Mixed Waste Treatment Project (AMWTP). The EPA conducted this audit on September 18–20, 2018, at Fluor Idaho, LLC offices located in Idaho Falls, ID. The purpose of the audit was to verify implementation of Fluor Idaho, LLC's QA program relative to the requirements of American Society of Mechanical Engineers (ASME) Nuclear Quality Assurance (NQA) Standard NQA-1-1989, "Quality Assurance Program Requirements for Nuclear Facilities."[1] Fluor Idaho, LLC is responsible for ensuring that AMWTP operations, including characterization of transuranic (TRU) wastes, are performed in compliance with the requirements of NQA-1-1989.

During this audit, the EPA audit team reviewed documents and records provided by Fluor Idaho, LLC and interviewed applicable Fluor Idaho, LLC personnel. A list of personnel who participated in the audit is in Attachment A. For each NQA-1-1989 element evaluated, the EPA used checklists, which are located in Attachments B–F. The EPA QA auditors evaluated the Fluor Idaho, LLC 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 15, "Control of Nonconforming Items."
- Element 16, "Corrective Action."
- Element 17, "Records."

Based on this audit, the EPA audit team determined that the Fluor Idaho, LLC 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. The EPA audit team did not identify any findings or concerns during the audit.

This document and audit activities will be made available to the public through the Agency's general EPA Air e-Docket at www.regulations.gov (Docket No. EPA-HQ-OAR-2001-0012-0481).

2.0 BACKGROUND

2.1 Regulatory Background

In accordance with 40 CFR 194.22(a)(1), the EPA requires DOE to adhere to a QA program that implements the requirements of the following NQA standards developed by ASME:

- ASME NQA-1-1989.
- ASME NQA-2a-1990 Addenda, Part 2.7, to ASME NQA-2-1989.

[1] The regulation at 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.

- ASME NQA-3-1989 (excluding section 2.1(b) and (c) and section 17.1).

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 the EPA with the authority to conduct audits to verify the proper establishment and implementation of QA programs for the WIPP.

2.2 Organizational Background

The Idaho Cleanup Project characterizes and certifies contact-handled (CH) TRU waste for disposal at the Waste Isolation Pilot Plant (WIPP).

Fluor Idaho, LLC is DOE's contractor that manages the Idaho Cleanup Project. The AMWTP is the project that carries out the ICP's mission to characterize and certify CH TRU waste in preparation for shipment to WIPP. A copy of portions of the Fluor Idaho, LLC organizational chart is in Attachment G.

3.0 PURPOSE AND SCOPE

The purpose of this EPA audit was to verify that the Fluor Idaho, LLC QA properly implements 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 packaging and certification of CH TRU waste as represented by records and documentation provided by Fluor Idaho, LLC. A copy of the audit scope is in Attachment H.

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. "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 Location

On September 18–20, 2018, the EPA conducted a QA audit of the Fluor Idaho, LLC QA program at the Fluor Idaho, LLC offices in Idaho Falls, ID. On August 14, 2018, the EPA provided the audit scope to Fluor Idaho, LLC QA personnel.

5.2 Team Members

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

Audit Team Member	Audit Responsibility	Affiliation
Jerry Ellis	EPA QA Audit Team Leader	EPA
Kira Darlow	Lead QA Auditor	SC&A, Inc.
Patrick Kelly	QA Auditor	SC&A, Inc.
Milton Gorden*	QA Auditor	SC&A, Inc.

*Did not travel to Idaho Falls; provided remote audit assistance.

Attachment A lists all other personnel who participated in this audit.

6.0 PERFORMANCE OF THE AUDIT

During this audit, the EPA evaluated selected aspects of the Fluor Idaho, LLC QA program to ensure that it has the appropriate independence, authority and resources to oversee all AMWTP operations.

The EPA audit team (1) reviewed records provided by Fluor Idaho, LLC, (2) interviewed Fluor Idaho, LLC personnel to evaluate implementation of the requirements of ASME NQA-1-1989, and (3) gathered objective evidence to document the proper implementation of the following elements[2]:

- Element 1, "Organization."
- Element 2, "Quality Assurance Program."
- Element 15, "Control of Nonconforming Items."
- Element 16, "Corrective Action."
- Element 17, "Records."

The EPA documented applicable reviewed records and objective evidence in NQA-1-1989-element-specific checklists. The checklists are included in this report in Attachments B–F.

7.0 FINDINGS AND CONCERNS

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

8.0 CONCLUSIONS

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

[2] All elements of the NQA-1-1989 standard are summarized in Attachment I.

above 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.

9.0 REFERENCES

00ICPESH, ESH&QA Awareness Training, Revision 3, October 3, 2017

CAR No. 116640, observed September 18, 2018

CCP CAR No. RH-INL-0346-17, observed September 19, 2018

CCP-PO-024, CCP/Idaho National Laboratory (INL) Interface Document, Revision 17, May 17, 2018

Demonstration of connection between TrackWise and WTS for NCR Nos. 97475, 114590 and 119364, September 19, 2018

Document Change Request, MP-TRUW-8.1, Revision 0, July 15, 2002

Document Change Request, MP-TRUW-8.1, Superseded, November 15, 2016

Draft QA slides for 00IPCESH, Revision 4, provided September 18, 2018

Employee Training History Files for Debbie Chapple, Elvin Dumas, Angie Morse, Alice Doswell, Jolein High and Travis Thompson, observed September 19, 2018

Fluor Idaho Position Description, Quality & Performance Assurance Manager, January 5, 2017

Fluor Idaho Position Description, Quality Assurance Engineer, January 31, 2017

Form 225.03, Lead Auditor Qualification Record, Revision 7, January 27, 2015

Form 414.73, Personnel Certification Data Form, Revision 8, May 9, 2016

Form 414.A83, Inspection Personnel Recertification Data Form, Revision 5, June 7, 2017

Form 414.A88, Inspector/Nondestructive Examination (NDE) Personnel Annual Proficiency Data, Revision 6, May 9, 2016

FWD-7, Foreword, Revision 16, April 4, 2017

ID HAD-117, Fire Safety Assessment for IF-663 Records Storage Facility, Revision 3, May 10, 2012

INEEL Records Storage Facility (Project No. 020920) Technical Specifications, Spec 264, HVAC Control System 15900-8 of 10, May 24, 2017

Inspection and Test Qualification Files for Kelly Taylor II, Justin Marotz and Justin Guidinger, observed September 19, 2018

Lead Auditor Qualification Packages for Michael Keaton, Danny Cochran and Gary LaBruyere, observed September 19, 2018

LST-1001, WIPP List, Revision 4, August 8, 2018

LST-202, Company-Level Required Assessments, Revision 19, August 29, 2018

LST-598, ICP Quality Implementing Plan, Revision 11, August 25, 2017

Manual 13, Quality Assurance Program

MCP-1309, Inspection Personnel Certification, Revision 14, April 5, 2018

MCP-135, Document Management, Revision 43, June 20, 2018

MCP-196, Qualification of Auditors and Lead Auditors, Revision 18, November 10, 2016

MCP-2064, Implementing Records Management Processes, Revision 5, November 16, 2016

MCP-33, Personnel Qualification and Certification, Revision 14, March 19, 2018

MCP-3865, INL Site Records Center (ISRC) Record Submittal, Retrieval, Revision 5, August 2, 2017

MCP-4022, Material Management, Revision 1, January 3, 2018

MCP-48, Training Analysis, Design, Development, and Release, Revision 15, August 1, 2018

MCP-538, Control of Non-Conforming Items, Revision 30, April 6, 2017

MCP-540, Assigning Quality Levels, Revision 25, November 15, 2016

MCP-557, Records Management, Revision 19, November 16, 2016

MCP-598, Corrective Action System, Revision 36, July 30, 2018

National Archives and Records Administration, Letter to Ms. Mishelle Hugues, Supervisor IMS Records Services Re: Facility Certification: DOE-ID/Idaho National Laboratory, Idaho Falls Building IF-663, INL Records Storage Facility, February 16, 2007

National Archives and Records Administration, Letter to Patricia Bergeson, DOE-ID Records Management Field Office Re: Continued approval for DOE's ISRC Records Center Building IF-663, May 31, 2017

NCR Nos. 97475, 102689, 114590, 115821, 116578, 119364, 119798, 120222, 121244, 121372, 122458, 122569, 122570 and 1089976, observed in TrackWise on September 19, 2018

Organization Charts, August 27, 2018

PLN-1810, Records Recovery and Restoration Plan, Revision 4, July 18, 2016

PLN-5198, AMWTP CH TRU Waste Certification Plan, Revision 2, July 31, 2018

PLN-5199, Quality Assurance Project Plan, Revision 2, July 31, 2018

PRD-5070, Organization, Revision 21, November 10, 2016

PRD-5071, Quality Assurance Program, Revision 25, March 29, 2017

PRD-5072, Personnel Training and Qualification, Revision 20, September 14, 2017

PRD-5073, Audit Personnel Qualification and Certification, Revision 19, March 29, 2017

PRD-5086, Control of Nonconforming Items, Revision 18, April 25, 2017

PRD-5087, Corrective Action, Revision 18, November 10, 2016

PRD-5088, Quality Assurance Records, Revision 19, November 10, 2016

PRD-5089, Quality Assurance Audits, Revision 17, November 10, 2016

PRD-5091, Assessments, Revision 16, November 10, 2016

QPOT03A0, Real-Time Radiography Qualification Package, Revision 15, August 30, 2018

Quality Engineer Qualification Packages for Gary Harris, Garth Bybee and Travis Andersen, QCQAENG1, observed September 19, 2018

Real-Time Radiography Qualification Packages for Roelont Thompson and Samuel Phillips, QPOT03A0, observed September 19, 2018

RPT-1639, Formal Cause Analysis Report, EM-ID—FID-AMWTF-2018-0001, Pyrophoric Event in WMF-676 Treatment Facility North Boxline, CAR 116640, M.L. Fife, March 2018

STD-1113, Cause Analysis and Corrective Action Development, Revision 8, August 7, 2018

Supply Chain Inspector Qualification Files for Scott Hunting, Casey Nelson and Jerame Henderson, observed September 19, 2018

Surveillance No. 107158, ICP Surveillance Report, Dose-to-Curie Surveillance, CCP-TP-504 and Batch Data Reports - CAR 108933 Corrective Action Effectiveness, July 9, 2018

TPR-8083, Waste Container Handling, Revision 7, September 18, 2018

TrackWise screenshot of all assessments under Assessment Requirement No. 124, provided September 20, 2018

ATTACHMENT A: PERSONNEL PARTICIPATING IN AUDIT MEETINGS

Personnel	Affiliation	Area of Expertise/Function	Entrance Meeting	Interviewed	Exit Meeting
Jerry Ellis	EPA	EPA Audit Lead	✓	-	✓
Kira Darlow	SC&A	EPA Lead Auditor	✓	-	✓
Patrick Kelly	SC&A	EPA Auditor	✓	-	✓
Adrian Bergman	DOE-Idaho	DOE - EM QA Specialist	✓	-	✓
Alice Doswell	Fluor Idaho, LLC	ESH&Q Director	✓	✓	✓
Angie Morse	Fluor Idaho, LLC	QA Program Manager	✓	✓	✓
Danelle Cummings	ICP	Records Manager	✓	✓	✓
Danny Cochran	Fluor Idaho, LLC	Quality Engineer	-	✓	-
Darlene Bitsoi	Fluor Idaho, LLC	Records Management External Release Analyst	-	✓	-
Donna Kirchner	Fluor Idaho, LLC	Training Admin./Records Coordinator	-	✓	-
Doug Pruitt	DOE-Idaho	CH TRU Program Manager	✓	-	-
Ed Gulbransen	Fluor Idaho, LLC	TRU Program Deputy	✓	-	-
Elvin Dumas	Fluor Idaho, LLC	QA Manager	✓	✓	✓
Frank LaMarca	Fluor Idaho, LLC	Training Manager	✓	-	-
Jim Vernon	CTAC – CBFO QA	Observer	✓	-	✓
John McCoy	Fluor Idaho, LLC	TRU Program Manager	✓	-	-
Kenneth C. Sellers	Fluor Idaho, LLC	Records Management Supervisor//Records Specialist	-	✓	-
Norlene Schneider	Fluor Idaho, LLC	Train Administration	-	✓	-
Tera Steel	Fluor Idaho, LLC	Records Management	-	✓	-
Wes Skaar	Fluor Idaho, LLC	TRU Program SPM Designee	✓	-	-

ATTACHMENT B: ASME NQA-1-1989, ELEMENT 1, CHECKLIST

NQA-1 ELEMENT: No. 1 with Supplement 1S-1, *Organization* EPA AUDITORS: J. Ellis, P. Kelly, K. Darlow, M. Gorden DATE: September 2018

Basic Requirements

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are the organizational structure, functional responsibilities, levels of authority and lines of communication documented for activities affecting quality?	Y	PLN-5198, Revision 2, section 5.4, Quality Assurance Program, paragraph A; section 5.4.1, ICP TRU Program Organization; Figure 5.1, ICP TRU Program Organization Structure PLN-5199, Revision 2, section B-0, ICP Organization and Responsibilities, Figure B-1, CH TRU Organization LST-598, Revision 11, section 2, Management and Performance Criteria, paragraph Management/Criterion 1 - Program PRD-5070, Revision 21, Organization PRD-5071, Revision 25, section 3, Responsibilities MCP-540, Revision 25, section 2, Responsibilities Organization Charts, August 27, 2018
2	Do persons or organizations responsible for performing quality assurance functions have sufficient authority, access to work areas and organizational freedom to: • Identify quality problems? • Initiate, recommend, or provide solutions to quality problems through designated channels? • Verify implementation of solutions? • Assure that further processing, delivery, installation or use is controlled until proper disposition of a nonconformance, deficiency or unsatisfactory condition has occurred?	Y	PLN-5198, Revision 2, section 5.4.1, ICP TRU Program Organization, paragraph Site Quality Assurance Manager; Figure 5.1, ICP TRU Program Organization Structure PLN-5199, Revision 2, section B-0, ICP Organization and Responsibilities, paragraph CH-TRU Programs Manager, Figure B-1, CH TRU Organization PRD-5070, Revision 21, section 4.1.2, Structure and Responsibility, paragraph 4.1.2.1D Organization Charts, August 27, 2018 Interviews during audit
3	Do persons or organizations responsible for performing quality assurance functions have direct access to responsible management at a level where appropriate action can be effected?	Y	PLN-5198, Revision 2, section 5.4.1, ICP TRU Program Organization, paragraph Site Quality Assurance Manager; Figure 5.1, ICP TRU Program Organization Structure PRD-5070, Revision 21, section 4.1.2, Structure and Responsibility, paragraph 4.1.2.1D Organization Charts, August 27, 2018 Interviews during audit

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
4	Do persons or organizations responsible for performing quality assurance functions report to a management level that provides the required authority and organizational freedom, including sufficient independence from cost and schedule considerations?	Y	PLN-5198, Revision 2, section 5.4.1, ICP TRU Program Organization, paragraph Site Quality Assurance Manager; Figure 5.1, ICP TRU Program Organization Structure PRD-5070, Revision 21, section 4.1.2, Structure and Responsibility, paragraph 4.1.2.1D Organization Charts, August 27, 2018 Interviews during audit

Supplementary Requirements (1S-1)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are the organizational structure and the responsibility assignments such that: • Quality is achieved and maintained by those who have been assigned responsibility for performing work? • Quality achievement is verified by persons or organizations not directly responsible for performing the work?	Y	PLN-5198, Revision 2, section 5.4.1, ICP TRU Program Organization, paragraph Site Quality Assurance Manager; Figure 5.1, ICP TRU Program Organization Structure; section 5.4.2, ICP QA Program Description; section 5.8, Performance Requirements; section 5.12.2.1, QA Audits and Surveillances PLN-5199, Revision 2, section C3-4, Data Review, Validation, and Verification Requirements; section C5-1, Quality Assurance Project Plans PRD-5070, Revision 21, section 3, Responsibilities; section 4.1.2, Structure and Responsibility, paragraphs 4.1.2.1B and 4.1.2.1C PRD-5071, Revision 25, section 3.3, Quality and Performance Assurance Manager [Responsibilities]; section 3.10, Company Employee [Responsibilities] Fluor Idaho Position Description, Quality & Performance Assurance Manager, January 5, 2017 Fluor Idaho Position Description, Quality Assurance Engineer, January 31, 2017 Organization Charts, August 27, 2018
2	Do the individuals or organizations responsible for establishing and executing a quality assurance program delegate any or all of the work to others, and, if so, do the individuals or organizations retain responsibility for the quality assurance program?	Y	PLN-5198, Revision 2, section 5.4.2, ICP Program Description PRD-5070, Revision 21, section 4.1.3, Delegation of Work
3	Is responsibility for the control of further processing, delivery, installation or operation of nonconforming items designated in writing?	Y	PRD-5071, Revision 25, section 3.9, Cognizant Quality Inspectors [Responsibilities], paragraph F PRD-5086, Revision 18, section 3.2, Cognizant Company Management Personnel (Site-Area, Functional, and Program), paragraph F; section 4.1.6, Responsibility and Authority, paragraph 4.1.6.2 MCP-538, Revision 30, section 2, Responsibilities

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
4	Where more than one organization is involved in the execution of quality assurance activities, is the responsibility and authority of each organization clearly established and documented?	Y	PLN-5198, Revision 2, Figure 5.1, ICP TRU Program Organization Structure PRD-5070, Revision 21, section 3.1, Fluor Idaho – ICP Program Manager [Responsibilities], paragraph E; section 4.1.1, Basic [Requirements], paragraph 4.1.1.3 PRD-5071, Revision 25, section 4.1.1, Basic [Companywide Requirements], paragraph 4.1.1.12 Organization Charts, August 27, 2018
5	Are the external interfaces between organizations, as well as the internal interfaces between organizational units, documented? Are interface responsibilities defined and documented?	Y	PLN-5198, Revision 2, section 1, Introduction; Figure 1, Regulatory Basis of TRU Waste Acceptance Criteria; section 2, Responsibilities; section 5.4.1, ICP TRU Program Organization, paragraph Site Quality Assurance Manager; Figure 5.1, ICP TRU Program Organization Structure PRD-5070, Revision 21, section 3.4, Quality and Performance Assurance Manager, paragraphs F, G, K and P PRD-5071, Revision 25, section 4.1.1, Basic [Companywide Requirements], paragraph 4.1.1.13; section 3.7 Line Organization Managers, Paragraph A Organization Charts, August 27, 2018 CCP-PO-024, Revision 17, CCP/INL Interface Document Fluor Idaho Position Description, Quality & Performance Assurance Manager, January 5, 2017

*Y: The referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N: The referenced documents do not adequately define, describe, address or satisfy the NQA-1-1989 requirement.
I: The EPA requires additional information to determine if the referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N/A: The specific NQA-1-1989 requirement is not applicable to the subject QA program.

ATTACHMENT C: ASME NQA-1-1989, ELEMENT 2, CHECKLIST

NQA-1 ELEMENT: No. 2 with Supplements 2S-1, 2S-2, 2S-3 and 2S-4, *Quality Assurance Program* EPA AUDITORS: J. Ellis, K. Darlow, P. Kelly, M. Gorden DATE: September 2018

Basic Requirements

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Is a documented quality assurance program planned, implemented and maintained in accordance with NQA-1?	Y	PRD-5071, Revision 25, section 4.1.1, Basic [Requirements], paragraph 4.1.1.1 PLN-5199, Revision 2, Quality Assurance Project Plan Manual 13, Quality Assurance Program
2	Does the quality assurance program identify the activities and items to which it applies?	Y	FWD-7, Revision 16, Foreword PRD-5071, Revision 25, section 2, Applicability PLN-5198, Revision 2, section 5, Quality Assurance Requirements
3	Does the quality assurance program provide control over activities affecting quality to an extent consistent with their importance?	Y	PRD-5071, Revision 25, section 4.1.1, Basic [Requirements], paragraph 4.1.1.8 PLN-5198, Revision 2, section 5.4.4, Graded Approach MCP-540, Revision 25, section 1.2, Scope and Applicability
4	Was the quality assurance program established at the earliest time consistent with the schedule for accomplishing the activities?	Y	PRD-5071, Revision 25, section 4.1.1, Basic [Requirements], paragraph 4.1.1.3 Document Change Request, MP-TRUW-8.1, Revision 0, July 15, 2002 Document Change Request, MP-TRUW-8.1, Superseded, November 15, 2016 Interviews during audit
5	Does the quality assurance program provide for the planning and accomplishment of activities affecting quality under suitably controlled conditions, which include the use of appropriate equipment, suitable environmental conditions for accomplishing the activity and assurance that prerequisites for the given activity have been satisfied?	Y	PRD-5071, Revision 25, section 4.1.3, Planning Work, paragraphs 4.1.3.1 and 4.1.3.2 PLN-5198, Revision 2, section 5.8, Performance Requirements Interviews during audit
6	Does the quality assurance program provide for any special controls, processes, test equipment, tools and skills to attain the required quality and for verification of quality?	Y	PRD-5071, Revision 25, section 4.1.3, Planning Work, paragraph 4.1.3.3 PLN-5198, Revision 2, section 5.5.2, Training; section 5.8, Performance Requirements MCP-33, Revision 14, section 4.5, Subcontractor and Temporary Personnel Qualification Requirements, paragraph 4.5.2 LST-1001, Revision 4, WIPP List

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
7	Does the quality assurance program provide for indoctrination and training of personnel performing activities affecting quality?	Y	PRD-5071, Revision 25, section 4.2.7, Personnel Indoctrination, Training, Qualification, and Certification PRD-5072, Revision 20, Personnel Training and Qualification PLN-5198, Revision 2, section 5.5, Personnel Training and Qualification, paragraph 5.5.2 PLN-5199, Revision 2, section C3-8, Special Training Requirements and Certifications MCP-33, Revision 14, Personnel Qualification and Certification MCP-1309, Revision 14, Inspection Personnel Certification 00ICPESH, Revision 3, ESH&QA Awareness Training Draft QA slides for 00IPCESH, Revision 4, September 18, 2018
8	Does the management of the organizations implementing the quality assurance program regularly assess the adequacy of that part of the program for which they are responsible and assure its effective implementation?	Y	PLN-5198, Revision 2, section 5.12, Assessment Requirement, paragraph 5.12.1 PRD-5091, Revision 16, section 3.2, Management [Responsibilities] LST-202, Revision 19, Company-Level Required Assessments TrackWise screenshot of all assessments under Assessment Requirement No. 124, September 20, 2018

Supplementary Requirements (2S-1)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Does the responsible organization designate those activities that require qualified inspection and test personnel and minimum requirements for such personnel?	Y	PRD-5072, Revision 20, section 4.1.3, Qualification Requirements, paragraph 4.1.3.1; section 4.1.3.4.2, Inspection and Test PLN-5198, Revision 2, section 5.11, Inspection and Testing MCP-4022, Revision 1, section 4.2, Receiving Inspection of Material and Equipment MCP-1309, Revision 14, Inspection Personnel Certification
2	Has the responsible organization established written procedures for the qualification of inspection and test personnel to assure that only qualified personnel are permitted to perform inspection and test activities?	Y	PRD-5072, Revision 20, section 4.1.3, Qualification Requirements, paragraph 4.1.3.2 MCP-1309, Revision 14, Inspection Personnel Certification

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
3	Do personnel selected for performing inspection and test activities have the experience or training commensurate with the scope, complexity or special nature of the activities?	Y	PRD-5072, Revision 20, section 4.1.2, Indoctrination and Training, paragraph 4.1.2.1 PLN-5198, Revision 2, section 5.5.1, Qualification PLN-5199, Revision 2, section C3-8, Special Training Requirements and Certifications MCP-33, Revision 14, section 4.2, Qualification and Certification Program Requirements for Positions, paragraph 4.2.5 MCP-1309, Revision 14, Inspection Personnel Certification Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018
4	Have provisions been made for the indoctrination of personnel regarding the technical objectives and requirements of the applicable codes and standards and the quality assurance program elements that are to be employed?	Y	PRD-5072, Revision 20, section 4.1.2, Indoctrination and Training, paragraph 4.1.2.2 PLN-5198, Revision 2, section 5.5.2, Training PLN-5199, Revision 2, section C3-8, Special Training Requirements and Certifications MCP-33, Revision 14, section 4.2, Qualification and Certification Program Requirements for Positions, paragraph 4.2.5.4 MCP-1309, Revision 14, section 4.1, Initial Certification, paragraph 4.1.10A Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018
5	Has the need for a formal training program been determined? Are training activities, including on-the-job training, conducted to qualify personnel who perform inspections and tests?	Y	PRD-5072, Revision 20, section 4.1.2, Indoctrination and Training, paragraphs 4.1.2.3 and 4.1.2.4 PLN-5198, Revision 2, section 5.5.2, Training MCP-1309, Revision 14, section 4.1, Initial Certification, paragraph 4.1.10A Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018
6	Are the capabilities of a candidate for certification initially determined by a suitable evaluation of the candidate's education, experience, training and either test results or capability demonstration?	Y	PRD-5072, Revision 20, section 4.1.3.4.2, Inspection and Test, paragraph 4.1.3.4.2.1 MCP-33, Revision 14, section 4.3, Employee Initial Qualification and Certification Requirements, paragraphs 4.3.4 and 4.3.5 MCP-1309, Revision 14, section 4.1, Initial Certification, paragraphs 4.1.13–4.1.15 Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018
7	Is the job performance of inspection and test personnel reevaluated at periodic intervals not to exceed three years?	Y	PRD-5072, Revision 20, section 4.1.3.4.2, Inspection and Test, paragraph 4.1.3.4.2.2 MCP-1309, Revision 14, section 4.5, Periodic Evaluation of Qualifications Form 414.A83, Revision 5, Inspection Personnel Recertification Data Form Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
8	If it is determined at any time that the capabilities of an individual are not in accordance with the qualification requirements specified for the job, is that person removed from that activity until such time as the required capability has been demonstrated?	Y	PRD-5072, Revision 20, section 4.1.3.4.2, Inspection and Test, paragraph 4.1.3.4.2.3 MCP-33, Revision 14, section 4.6, Disqualification MCP-1309, Revision 14, section 4.5, Periodic Evaluation of Qualifications, paragraph 4.5.2.3 Form 414.A83, Revision 5, Inspection Personnel Recertification Data Form Interviews during audit
9	Is a person reevaluated for a required inspection or test capability if activities have not been performed in his or her qualified area for a period of one year?	Y	PRD-5072, Revision 20, section 4.1.3.4.2, Inspection and Test, paragraph 4.1.3.4.2.4 Form 414.A83, Revision 5, Inspection Personnel Recertification Data Form Interviews during audit
10	Is the qualification of personnel certified in writing in an appropriate form, including: • Employer's name? • Identification of person being certified? • Activities certified to perform? • Basis used for certification, including: – Education, experience, indoctrination and training? – Test results, where applicable? – Results of capability demonstration? • Results of periodic evaluation? • Results of physical examinations, when required? • Signature of employer's designated representative who is responsible for such certification? • Date of certification and date of certification expiration?	Y	PRD-5072, Revision 20, section 4.1.3.4.2, Inspection and Test, paragraph 4.1.3.4.2.5 MCP-1309, Revision 14, section 4.4, Certification, paragraph 4.4.6; section 4.5, Periodic Evaluation of Qualifications, paragraphs 4.5.1.5 and 4.5.2.2 Form 414.A83, Revision 5, Inspection Personnel Recertification Data Form Form 414.A88, Revision 6, Inspector/NDE Personnel Annual Proficiency Data Form 414.73, Revision 8, Personnel Certification Data Form Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018
11	Has the responsible organization identified any special physical characteristics needed in the performance of each activity, including the need for initial and subsequent physical examination?	Y	MCP-1309, Revision 14, section 4.2, Physical Examination; Appendix C, Physical Requirements Form 414.73, Revision 8, Personnel Certification Data Form Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
12	Does the employer establish and maintain records of personnel qualification?	Y	PRD-5072, Revision 20, section 4.1.3, Qualification Requirements, paragraph 4.1.3.5 PLN-5198, Revision 2, section 5.5.2, Training MCP-33, Revision 14, section 4.2, Qualification and Certification Program Requirements for Positions, paragraph 4.2.6; section 4.3, Employee Initial Qualification and Certification Requirements, paragraph 4.3.9; section 4.4, Employee Requalification and Recertification Requirements, paragraph 4.4.7 MCP-1309, Revision 14, section 5, Records Inspection and Test Personnel Qualification Files, observed September 19, 2018 Supply Chain Inspector Qualification Files, observed September 19, 2018

Supplementary Requirements (2S-2)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Does the quality assurance program provide for the qualification of nondestructive examination personnel to the American Society of Nondestructive Testing Recommended Practice No. SNT-TC-1A, issued June 1980?	Y	PLN-5198, Revision 2, section 5.5.2, Training PRD-5072, Revision 20, section 4.1.3, Qualification Requirements, paragraph 4.1.3.4.1.1 QPOT03A0, Revision 15, Real-Time Radiography Qualification Package, August 30, 2018 Real-Time Radiography Qualification Packages, QPOT03A0, observed September 19, 2018
2	Has the responsible organization established written procedures for the control and administration of nondestructive examination personnel training, examination and certification?	Y	PLN-5198, Revision 2, section 5.5.2, Training QPOT03A0, Revision 15, Real-Time Radiography Qualification Package, August 30, 2018 Real-Time Radiography Qualification Packages, QPOT03A0, observed September 19, 2018
3	Does the employer establish and maintain records of personnel qualification?	Y	PLN-5198, Revision 2, section 5.5.2, Training PRD-5072, Revision 20, section 4.1.3, Qualification Requirements, paragraph 4.1.3.5 QPOT03A0, Revision 15, Real-Time Radiography Qualification Package, August 30, 2018 Real-Time Radiography Qualification Packages, QPOT03A0, observed September 19, 2018

Supplementary Requirements (2S-3)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Has the responsible auditing organization established the qualifications for audit personnel and the requirements for the use of technical specialists to accomplish the auditing of quality assurance programs?	Y	PLN-5198, Revision 2, section 5.12.2.1, QA Audits and Surveillances PRD-5073, Revision 19, Audit Personnel Qualification and Certification PRD-5089, Revision 17, section 4.1.5, Selection of the Audit Team MCP-196, Revision 18, Qualification of Auditors and Lead Auditors Quality Engineer Qualification Packages, observed September 19, 2018
2	Is the competence of audit personnel developed by one or more of the following methods: • Orientation to provide a working knowledge and understanding of NQA-1 and the auditing organization's procedures for implementing audits and reporting results? • Training programs to provide general and specialized training in audit performance? • On-the-job training, guidance and counseling under the direct supervision of a lead auditor?	Y	PRD-5073, Revision 19, section 4.1.2, Auditor Qualifications, paragraph 4.1.2.2 MCP-196, Revision 18, section 4.3, Auditor Qualification, paragraph 4.3.1 Interviews during audit
3	Does a prospective lead auditor have the capability to communicate effectively, both in writing and orally? Has the lead auditor's employer attested to these skills in writing?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.1 MCP-196, Revision 18, section 4.4, Lead Auditor Qualification/Certification, paragraph 4.1.1A Form 225.03, Revision 7, Lead Auditor Qualification Record Lead Auditor Qualification Packages, observed September 19, 2018

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
4	Are prospective lead auditors trained, as necessary, to assure their competence in auditing skills, including training in the following areas: • Knowledge and understanding of NQA-1 and other nuclear-related codes, standards, regulations and regulatory guides? • General structure of quality assurance programs as a whole and applicable elements as defined by NQA-1? • Auditing techniques of examining, questioning, evaluating and reporting; methods of identifying and following up on corrective action items; and closing out audit findings? • Audit planning in the quality-related functions for the following activities: design, purchasing, fabrication, handling, shipping, storage, cleaning, erection, installation, inspection, testing, statistics, nondestructive examination, maintenance, repair, operation, modification of nuclear facilities or associated components, and safety aspects of the nuclear facility? • On-the-job training to include applicable elements of the audit program?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.2 MCP-196, Revision 18, section 4.4, Lead Auditor Qualification/Certification, paragraph 4.1.1 Lead Auditor Qualification Packages, observed September 19, 2018
5	Is a prospective lead auditor required to have participated in a minimum of five quality assurance audits within a period of time not to exceed three years prior to the date of qualification, one audit of which shall be a nuclear quality assurance audit within one year prior to qualification?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.3 MCP-196, Revision 18, section 4.4, Lead Auditor Qualification/Certification, paragraph 4.1.1H Form 225.03, Revision 7, Lead Auditor Qualification Record Lead Auditor Qualification Packages, observed September 19, 2018
6	Is a prospective lead auditor required to pass an examination that evaluates his or her comprehension of and ability to apply the body of knowledge identified under the training requirements (listed under question 4 above)?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.5 MCP-196, Revision 18, section 4.4, Lead Auditor Qualification/Certification, paragraph 4.1.1G Form 225.03, Revision 7, Lead Auditor Qualification Record Lead Auditor Qualification Packages, observed September 19, 2018
7	Do lead auditors maintain their proficiency through one or more of the following: • Regular and active participation in the audit process? • Review and study of codes, standards, procedures, instructions and other documents related to quality assurance program and program auditing? • Participation in training programs?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.7 MCP-196, Revision 18, section 4.5, Maintenance of Qualification and/or Certification, paragraph 4.5.1 Interviews during audit Lead Auditor Qualification Packages, observed September 19, 2018

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
8	Does management conduct documented annual assessments of lead auditors to extend their qualification, require retraining or require requalification?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.7 Note MCP-196, Revision 18, section 4.5, Maintenance of Qualification and/or Certification, paragraphs 4.5.3 and 4.5.4 Lead Auditor Qualification Packages, observed September 19, 2018
9	Are lead auditors who fail to maintain their proficiency for a period of two years or more required to requalify?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.8 MCP-196, Revision 18, section 4.5, Maintenance of Qualification and/or Certification, paragraph 4.5.7 Interviews during audit
10	Is the employer responsible for training auditors?	Y	PRD-5073, Revision 19, section 4.1.2, Auditor Qualifications, paragraph 4.1.2.1 MCP-196, Revision 18, section 2, Responsibilities Interviews during audit
11	Does the responsible auditing organization select and assign personnel who are independent of any direct responsibility for performance of the activities that they will audit?	Y	PLN-5198, Revision 2, section 5.12.2.1, QA Audits and Surveillances PRD-5089, Revision 17, section 4.1.4, Audit Team Independence Interviews during audit Lead Auditor Qualification Packages, observed September 19, 2018
12	Does the lead auditor, prior to commencing the audit, concur that assigned audit personnel collectively have experience or training commensurate with the scope, complexity or special nature of the activities to be audited?	Y	PLN-5198, Revision 2, section 5.12.2.1, QA Audits and Surveillances PRD-5089, Revision 17, section 4.1.5, Selection of the Audit Team, paragraph 4.1.5.5 MCP-196, Revision 18, section 4.1, Qualification and Certification Process Administration, paragraph 4.1.2 Interviews during audit
13	Is the employer responsible for the development and administration of the examination for a lead auditor? If the employer delegates this activity to an independent certifying agency, does the employer retain responsibility for the conformance of the examination and its administration to the NQA-1-1989 standard?	Y	PRD-5073, Revision 19, section 3.2, Quality and Performance Assurance Manager, paragraphs A and C; section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.4 MCP-196, Revision 18, section 4.1, Qualification and Certification Process Administration, paragraphs 4.1.4–4.1.6 Lead Auditor Qualification Packages, observed September 19, 2018
14	Does the employer establish and maintain records of personnel qualifications for auditors and lead auditors performing audits?	Y	PRD-5073, Revision 19, section 3.2, Quality and Performance Assurance Manager, paragraph D MCP-196, Revision 18, section 2, Responsibilities; section 4.1, Qualification and Certification Process Administration, paragraph 4.1.7 Form 225.03, Revision 7, Lead Auditor Qualification Record Lead Auditor Qualification Packages, observed September 19, 2018

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
15	Does the employer certify each lead auditor as being qualified to lead audits, including documentation of the following by the certification: • Employer's name? • Lead auditor's name? • Date of certification or recertification? • Basis of qualification (i.e., education, experience, communication skills, training, examination, etc.)? • Signature of employer's designated representative who is responsible for such certification?	Y	PRD-5073, Revision 19, section 4.1.3, Lead Auditor Qualifications and Certification, paragraph 4.1.3.9 Form 225.03, Revision 7, Lead Auditor Qualification Record Lead Auditor Qualification Packages, observed September 19, 2018
16	Are the records for each lead auditor maintained and updated annually?	Y	PRD-5073, Revision 19, section 3.2, Quality and Performance Assurance Manager, paragraph D MCP-196, Revision 18, section 2, Responsibilities; section 4.5, Maintenance of Qualification and/or Certification Lead Auditor Qualification Packages, observed September 19, 2018

Supplementary Requirements (2S-4)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are personnel identified for indoctrination or training?	Y	PLN-5198, Revision 2, section 5.5, Personnel Qualification and Training PLN-5199, Revision 2, section C3-8, Special Training Requirements and Certifications PRD-5072, Revision 20, section 4.1, Basic [Requirements], paragraph 4.1.1.1 MCP-33, Revision 14, section 2, Responsibilities; section 4.2, Qualification and Certification Program Requirements for Positions, paragraph 4.2.1 Employee Training History Files, observed September 19, 2018
2	Is the extent of indoctrination and training commensurate with the following: • The scope, complexity and nature of the activity? • The education, experience and proficiency of the person?	Y	PLN-5198, Revision 2, section 5.5, Personnel Qualification and Training PRD-5072, Revision 20, section 4.1.2, Indoctrination and Training, paragraph 4.1.2.1 MCP-33, Revision 14, section 4.2, Qualification and Certification Program Requirements for Positions, paragraph 4.2.5; section 4.3, Employee Initial Qualification and Certification Requirements, paragraph 4.3.6 Employee Training History Files, observed September 19, 2018

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
3	Are personnel indoctrinated in the following subjects as they relate to a particular function: • General criteria, including applicable codes, standards and company procedures? • Applicable quality assurance program elements? • Job responsibilities and authority?	Y	PLN-5198, Revision 2, section 5.5.2, Training PRD-5072, Revision 20, section 4.1.2, Indoctrination and Training, paragraph 4.1.2.2 MCP-33, Revision 14, section 4.2, Qualification and Certification Program Requirements for Positions, paragraph 4.2.5.4 Employee Training History Files, observed September 19, 2018 00ICPESH, Revision 3, ESH&QA Awareness Training, October 3, 2017 Draft QA slides for 00IPCESH, Revision 4, provided September 18, 2018
4	Is training provided, if needed, to: • Achieve initial proficiency? • Maintain proficiency? • Adapt to changes in technology, methods or job responsibilities?	Y	PLN-5198, Revision 2, section 5.5.2, Training PRD-5072, Revision 20, section 4.1.2, Indoctrination and Training, paragraph 4.1.2.3 MCP-33, Revision 14, section 4.3, Employee Initial Qualification and Certification Requirements, paragraph 4.3.7; section 4.4, Employee Requalification and Recertification Requirements, paragraph 4.4.5 Employee Training History Files, observed September 19, 2018
5	Do records of the implementation of indoctrination and training take the form of: • Attendance sheets? • Training logs? • Personnel training records?	Y	PRD-5072, Revision 20, section 4.1.3, Qualification Requirements, paragraph 4.1.3.5 Note Employee Training History Files, observed September 19, 2018

*Y: The referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N: The referenced documents do not adequately define, describe, address or satisfy the NQA-1-1989 requirement.
I: The EPA requires additional information to determine if the referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N/A: The specific NQA-1-1989 requirement is not applicable to the subject QA program.

ATTACHMENT D: ASME NQA-1-1989, ELEMENT 15, CHECKLIST

NQA-1 ELEMENT: No. 15 with Supplement 15S-1, *Control of Nonconforming Items* EPA AUDITORS: J. Ellis, K. Darlow, P. Kelly, M. Gorden DATE: September 2018

Basic Requirements

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are items that do not conform to specified requirements controlled to prevent inadvertent installation or use?	Y	PLN-5198, Revision 2, section 5.6.1, Quality-Affecting Problems; section 5.6.2, Nonconforming Items; section 5.13, Scientific Investigation Requirements, paragraph F; section A.4, Quality Control PRD-5086, Revision 18, section 1, Purpose; section 3.2, Cognizant Company Management Personnel (Site-Area, Functional, and Program), paragraph F; section 4.1.1, Basic [Requirements], paragraph 4.1.1.1; section 4.1.8, Segregation LST-598, Revision 11, section 2, Management and Performance Criteria, paragraph Management/Criterion 3 – Quality Improvement MCP-538, Revision 30, section 1.1, Purpose; section 4.1, General Requirements, paragraph 4.1.2 NCR Nos. 102689, 122458, 122569 and 122570, observed September 19, 2018
2	Are controls provided for identification, documentation, evaluation, segregation (when practical) and disposition of nonconforming items, and for notification to affected organizations?	Y	PLN-5198, Revision 2, section 5.6.2, Nonconforming Items PRD-5086, Revision 18, section 4.1.1, Basic [Requirements], paragraph 4.1.1.1; section 4.1.2, Documentation and Evaluation; section 4.1.3, Notification; section 4.1.4, CBFO Reporting; section 4.1.7, Identification; section 4.1.8, Segregation; section 4.1.9, Disposition MCP-538, Revision 30, Control of Nonconforming Items TPR-8083, Revision 7, section 1.2, Scope and Applicability; section 4.1, General Instructions, paragraph 4.1.2, Note

Supplementary Requirements (15S-1)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are nonconforming items identified by marking, tagging or other methods that shall not adversely affect the end use of the item?	Y	PLN-5198, Revision 2, section 5.6.2, Nonconforming Items PRD-5086, Revision 18, section 4.1.7, Identification, paragraph 4.1.7.1 MCP-538, Revision 30, section 4.2, Initiation of QA Program Nonconformances Using Issues Management System, paragraphs 4.2.1.7–4.2.1.9 section 4.13, paragraphs 4.13.1 and 4.13.2
2	Is the identification of nonconforming items legible and easily recognizable?	Y	PRD-5086, Revision 18, section 4.1.7, Identification, paragraph 4.1.7.1 MCP-538, Revision 30, section 4.13, NCR Tagging

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
3	Are nonconforming items segregated, when practical, by placing them in a clearly identified and designated hold area until properly dispositioned?	Y	PRD-5086, Revision 18, section 4.1.8, Segregation, paragraph 4.1.8.1 MCP-538, Revision 30, section 4.5, Disposition by Responsible Manager – QA Program NCR, paragraph 4.5.1.1.1; section 4.13, NCR Tagging, paragraph 4.13.4.1
4	Are nonconforming items dispositioned in accordance with documented procedures?	Y	PLN-5198, Revision 2, section 5.6.2, Nonconforming Items PRD-5086, Revision 18, section 4.1.9, Disposition MCP-538, Revision 30, Control of Nonconforming Items NCR No. 122570
5	Is further processing, delivery, installation or use of a nonconforming item controlled pending an evaluation and an approved disposition by authorized personnel?	Y	PRD-5086, Revision 18, section 4.1.6, Responsibility and Authority, paragraph 4.1.6.3 MCP-538, Revision 30, section 4.5.2, Conditional Use; section 4.13, NCR Tagging Demonstration of connection between TrackWise and WTS for NCR Nos. 97475, 114590 and 119364, September 19, 2018
6	Are the responsibility and authority for the evaluation and disposition of nonconforming items defined?	Y	PLN-5198, Revision 2, section 5.6.2, Nonconforming Items PRD-5086, Revision 18, section 4.1.6, Responsibility and Authority, paragraph 4.1.6.1 MCP-538, Revision 30, section 4.3, Approvals – QA Program NCRs, paragraph 4.3.1; section 4.4, Quality Assurance Evaluation – QA Program NCRs, paragraph 4.4.1; section 4.5, Disposition by Responsible Manager – QA Program NCRs, paragraph 4.5.1; section 4.6, QA Disposition Concurrence – QA Program NCRs; section 4.7, Disposition/Corrective Action Plan (CAP) Action Complete – QA Program NCRs Interviews during audit
7	Do the personnel performing evaluations to determine disposition of nonconforming items have: • Demonstrated competence in the specific area they are evaluating? • An adequate understanding of the requirements? • Access to pertinent background information?	Y	PRD-5086, Revision 18, section 4.1.5, Personnel, paragraph 5.1.5.1 MCP-538, Revision 30, section 2, Responsibilities NCR Nos. 115821 and 119798 Employee Training History Files, observed September 19, 2018
8	Is the final disposition (e.g., use-as-is, reject, repair, rework) of nonconforming items identified and documented?	Y	PLN-5198, Revision 2, section 5.6.2, Nonconforming Items PRD-5086, Revision 18, section 4.1.9, Disposition, paragraph 4.1.9.1 MCP-538, Revision 30, section 4.5, Disposition by Responsible Manager – QA Program NCRs, paragraphs 4.5.1.2 and 4.5.1.3 NCR Nos. 115821 and 119798

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
9	Is the technical justification for the acceptability of a nonconforming item, dispositioned repair, or use-as-is documented?	Y	PRD-5086, Revision 18, section 4.1.9, Disposition, paragraph 4.1.9.2 MCP-538, Revision 30, section 4.5, Disposition by Responsible Manager – QA Program NCRs, paragraph 4.5.1.3 NCR Nos. 115821, 116578, 119798, 121244 and 121372
10	Are nonconformances to design requirements, specifically those dispositioned for use-as-is or repair, subjected to design control measures commensurate with those applied to the original design?	Y	PRD-5086, Revision 18, section 4.1.9, Disposition, paragraph 4.1.9.3 and 4.1.9.5 MCP-538, Revision 30, section 4.1, General Requirements, paragraph 4.1.4 NCR No. 116578
11	Is an accepted deviation documented on as-built records?	Y	PRD-5086, Revision 18, section 4.1.9, Disposition, paragraph 4.1.9.4 MCP-538, Revision 30, section 4.5, Disposition by Responsible Manager – QA Program NCRs, paragraph 4.5.1.5.1; section 4.7, Disposition/Corrective Action Plan (CAP) Action Complete – QA Program NCR, paragraph 4.7.3.3.3
12	Are repaired or reworked items reexamined in accordance with applicable procedures and with the original acceptance criteria, unless the nonconforming item disposition has established alternate acceptance criteria?	Y	PRD-5086, Revision 18, section 4.1.9, Disposition, paragraph 4.1.9.7; section 4.1.10, Reexamination MCP-538, Revision 30, section 4.5, Disposition by Responsible Manager – QA Program NCRs, paragraph 4.5.1.3.2 NCR No. 116578

*Y: The referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N: The referenced documents do not adequately define, describe, address or satisfy the NQA-1-1989 requirement.
I: The EPA requires additional information to determine if the referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N/A: The specific NQA-1-1989 requirement is not applicable to the subject QA program.

ATTACHMENT E: ASME NQA-1-1989, ELEMENT 16, CHECKLIST

NQA-1 ELEMENT: No. 16, *Corrective Action* EPA AUDITORS: J. Ellis, K. Darlow, P. Kelly, M. Gorden DATE: September 2018

Basic Requirements

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are conditions adverse to quality identified promptly and corrected as soon as practical?	Y	PLN-5198, Revision 1, Section 5.4.1, ICP TRU Program Organization; Section 5.6.2, Nonconforming Items; Section 5.6.3, Conditions Adverse to Quality; Section 5.6.4, Corrective Action LST-598, Revision 11, Section 2, Management and Performance Criteria, Management/Criterion 3 – Quality Improvement MCP-598, Revision 36, Corrective Action System PRD-5087, Revision 18, Section 1, Purpose; Section 4.1.3, Conditions Adverse to Quality, paragraph 4.1.3.2; Section 4.1.4, Significant Conditions Adverse to Quality, paragraph 4.1.4.6D
2	In the case of a significant condition adverse to quality, is the cause of the condition determined and corrective action taken to preclude recurrence?	Y	PLN-5198, Revision 1, Section 5.6.4, Corrective Action; Section 5.6.5, Improvement Analysis and Trending PLN-5199, Revision 1, Section C3-7, Nonconformances MCP-598, Revision 36, Section 4.6.1, Analysis and Correction of Significant CARs, paragraphs 4.6.1 and 4.6.6 PRD-5087, Revision 18, Section 4.1.1, Basic, paragraph 4.1.1.2; Section 4.1.4, Significant Conditions Adverse to Quality, paragraphs 4.1.4.2 and 4.1.4.6; Section 4.1.5, Follow-up and Closure Action, paragraph 4.1.5.3 STD-113, Revision 8, Cause Analysis and Corrective Action Development CAR No. 116640 RPT-1639, Formal Cause Analysis Report, EM-ID—FID-AMWTF-2018-0001, Pyrophoric Event in WMF-676 Treatment Facility North Boxline, CAR 116640
3	Are the identification, cause and corrective action for significant conditions adverse to quality documented and reported to appropriate levels of management?	Y	PLN-5198, Revision 1, Section 5.6.4, Corrective Action PLN-5199, Revision 1, Section C-5a (3), CBFO's Audit and Surveillance Program MCP-598, Revision 36, Section 4.6, Analysis and Correction of Significant CARs PRD-5087, Revision 18, Section 4.1.1, Basic, paragraph 4.1.1.5; Section 4.1.4, Significant Conditions Adverse to Quality, paragraph 4.1.4.2; Section 4.1.7, Quality and Performance Assurance Trending, paragraphs 4.1.7.3 and 4.1.7.7

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
4	Is follow-up action taken to verify implementation of corrective action?	Y	PLN-5198, Revision 1, Section 5.6.4, Corrective Action PLN-5199, Revision 1, Section C6-1, Introduction MCP-598, Revision 36, Section 4.5, Analysis and Correction of Non-Significant CARs, paragraphs 4.5.5.3 and 4.5.6; Section 4.6, Analysis and Correction of Significant CARs, paragraph 4.6.6; Section 4.7, Quick Capture Reports, paragraph 4.7.1 NCR Nos. 102689, 114590, 115821, 116578, 119364, 120222, 119798, 121244, 121372, 122458, 122569, 122570 and 1089976 CCP CAR No. RH-INL-0346-17 PRD-5087, Revision 18, Section 3.3, Cognizant Director or Designee (Site-Area, Functional, and Program), paragraph G; Section 4.1.5, Follow-up and Closure Action Surveillance No. 107158, July 9, 2018

*Y: The referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N: The referenced documents do not adequately define, describe, address or satisfy the NQA-1-1989 requirement.
I: The EPA requires additional information to determine if the referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N/A: The specific NQA-1-1989 requirement is not applicable to the subject QA program.

ATTACHMENT F: ASME NQA-1-1989, ELEMENT 17, CHECKLIST

NQA-1 ELEMENT: No. 17 with Supplement 17S-1, *QA Records* EPA AUDITORS: J. Ellis, P. Kelly, K. Darlow, M. Gorden DATE: September 2018

Basic Requirements

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Are records that furnish documentary evidence of quality specified, prepared and maintained?	Y	PLN-5198, Revision 2, Section 5.7.2, Records; Section 5.10.2, Control of Purchased Items and Services PLN-5199, Revision 2, Section C-4A(6), Records Management; Section C3-4, Data Review, Validation, and Verification Requirements; Section C-7a, General Requirements LST-598, Revision 11, Section 2, Management and Performance Criteria, Management Criterion 4 – Documents and Records MCP-4022, Revision 1, Section 2, Responsibilities; Section 5, Records; Appendix A, Description of Forms MCP-557, Revision 19, Section 4.8, Controlling Quality Assurance Records MCP-2064, Revision 5, Implementing Records Management Processes PRD-5088, Revision 19, Section 4.1.1, Basic, paragraphs 4.1.1.1, 4.1.1.5 and 4.1.1.6
2	Are quality assurance records legible, identifiable and retrievable?	Y	PLN-5198, Revision 2, Section 5.7.2, Records PLN-5199, Revision 2, Section C-4A(6), Records Management; Section C-7a, General Requirements MCP-557, Revision 19, Section 4.5, Storing Records; Section 4.8, Controlling Quality Assurance Records MCP-4022, Revision 1, Section 5, Records PRD-5088, Revision 19, Section 4.1.2, Generation of Records, paragraphs 4.1.2.1 and 4.1.2.5; Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.3; Section 4.2.2, Creating Valid Quality Assurance Records, paragraph 4.2.2.1; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraph 4.1.6.9
3	Are quality assurance records protected against damage, deterioration or loss?	Y	MCP-557, Revision 19, Section 4.5.1, Storing Records PRD-5088, Revision 19, Section 4.2.2, Creating Valid Quality Assurance Records, paragraph 4.2.2.2; Section 4.2.3, Storing and Preserving Quality Assurance Records, paragraph 4.2.3.1; Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.4; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraphs 4.1.6.1 and 4.1.6.5; Section 4.1.7, Temporary Storage of QA Records, paragraph 4.1.7.1

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
4	Are the requirements and responsibilities established and documented for the transmittal, distribution, retention, maintenance and disposition of quality assurance records?	Y	PLN-5198, Revision 2, Section A.5.3, Data and Records Retention MCP-557, Revision 19, Section 2, Responsibilities; Section 4.3, Maintaining Records; Section 4.4, Litigation (Preservation) Holds; Section 4.6, Transferring and Retrieving Records; Section 4.8, Controlling Quality Assurance Records PRD-5088, Revision 19, Section 3.4, Records Control Personnel; Section 4.1.1.3, Indexing QA Records, paragraph 4.1.1.3.1.2; Section 4.1.4.3, Classification of Waste Isolation Pilot Plant Records, paragraph 4.1.4.3.5; Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.3; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraphs 4.1.6.8; Section 4.1.8, Retention and Disposition of Quality Assurance Records; Section 4.1.8.6, WIPP Records Disposition, paragraph 4.1.8.6.6; Section 4.2.4, Retention of Quality Assurance Records MCP-135, Revision 43, Document Management Note: Distribution is not performed at the INL Site Records Center

Supplementary Requirements (17S-1)

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
1	Has a quality assurance records system been established?	Y	PLN-5199, Revision 2, Section C-4A(6), Records Management MCP-557, Revision 19, Section 4.1, Managing Records MCP-2064, Revision 5, Section 4.1, ICP Records Management Program Direction and Implementation, paragraph 4.1.2.6B PRD-5088, Revision 19, Section 2, Applicability; Section 4.1.1.3, Indexing QA Records, paragraph 4.1.1.3.1; Section 4.1.2, Generation of Records, paragraphs 4.1.2.3 and 4.1.2.5; Section 4.1.3, Authentication of QA Records, paragraph 4.1.3.3; Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.2
2	Is the quality assurance records system defined, implemented and enforced in accordance with written procedures, instructions or other documentation?	Y	MCP-557, Revision 19, Records Management MCP-135, Revision 43, Document Management PRD-5088, Revision 19, Section 2, Applicability
3	Do the applicable design specifications, procurement documents, test procedures, operational procedures or other documents specify the quality assurance records to be generated, supplied or maintained by the facility?	Y	PLN-5199, Revision 2, Section C-4a (6), Records Management; Table C-3, Required Program Records Maintained in ICP Project Files PRD-5088, Revision 19, Section 4.1.2, Generation of Records, paragraph 4.1.2.3

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
4	Are quality assurance records required to be legible, accurate and complete?	Y	PLN-5198, Revision 2, Section 5.7.2, Records; Section C-7a, General Requirements PLN-5199, Revision 2, Section C-7a, General Requirements MCP-557, Revision 19, Section 2, Responsibilities PRD-5088, Revision 19, Section 4.1.2, Generation of Records, paragraphs 4.1.2.1 and 4.1.2.5; Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.3; Section 4.2.2, Creating Valid Quality Assurance Records, paragraph 4.2.2.1; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraph 4.1.6.9
5	Are documents considered to be valid quality assurance records only if stamped, initialed or signed and dated by authorized personnel, or otherwise authenticated?	Y	MCP-557, Revision 19, Section 4.8, Controlling Quality Assurance Records, paragraph 4.8.2.1 PRD-5088, Revision 19, Section 4.1.3, Authentication of QA Records, paragraph 4.1.3.1
6	Are the quality assurance records indexed? Does the indexing system include record retention times and the location of the record within the quality assurance record system?	Y	MCP-557, Revision 19, Section 4.6, Transferring and Retrieving Records, paragraph 4.6.3 PRD-5088, Revision 19, Section 4.1.1.3, Indexing QA Records
7	Are quality assurance records distributed, handled and controlled in accordance with written procedures?	Y	MCP-557, Revision 19, Records Management PRD-5088, Revision 19, Quality Assurance Records
8	Do quality assurance records provide sufficient information to permit identification between the record and the items or activities to which it applies?	Y	MCP-557, Revision 19, Section 4.5, Storing Records, paragraph 4.5.6 PRD-5088, Revision 19, Section 4.1.1.3, Indexing QA Records, paragraph 4.1.1.3.1.3
9	Are quality assurance records classified as either lifetime or nonpermanent?	Y	MCP-557, Revision 19, Section 4.8, Controlling Quality Assurance Records, paragraph 4.8.3.1 PRD-5088, Revision 19, Section 4.1.4, Classification of QA Records MCP-2064, Revision 5, Section 4.1, ICP Records Management Program Direction and Implementation, paragraph 4.1.2.19
10	Is the retention time for nonpermanent quality assurance records established in writing?	Y	PLN-5198, Revision 2, Section 5.7.2, Records PRD-5088, Revision 19, Section 4.1.4, Classification of QA Records, paragraph 4.1.4.3.5 Record Schedule Matrix, March 9, 2018
11	Are quality assurance records corrected in accordance with procedures that provide for appropriate review or approval by the originating organization? Does the correction include the date and the identification of the person authorized to issue such correction?	Y	MCP-557, Revision 19, Section 4.8, Controlling Quality Assurance Records, paragraph 4.8.4 PRD-5088, Revision 19, Section 4.1.10, Correcting Information in Quality Assurance Records

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
12	Does the individual or organization responsible for receiving quality assurance records provide protection from damage or loss during the time that the records are in their possession?	Y	MCP-2064, Revision 5, Section 4.1, ICP Records Management Program Direction and Implementation, paragraph 4.1.2.19, Tables 1 & 2 (RIDS) MCP-3865, Revision 5, Section 4.4.4, Box Acceptance or Rejection; Section 6, Definitions; Appendix A, Using Box Submittal System; Appendix B, Rejected Box Correction PRD-5088, Revision 19, Section 4.2.3, Storing and Preserving Quality Assurance Records, paragraph 4.2.3.1; Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.4; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraphs 4.1.6.1 and 4.1.6.5
13	Does each organization responsible for the receipt of quality assurance records designate a person or organization responsible for receiving the records?	Y	PLN-5198, Revision 2, Section 5.7.2, Records MCP-2064, Revision 5, Section 4.1, ICP Records Management Program Direction and Implementation, paragraph 4.1.2.22 PRD-5088, Revision 19, Section 4.1.5, Receipt Control of Quality Assurance Records, paragraph 4.1.5.1
14	Does the receipt control system include: • A method for designating the required records? • A method for identifying records received? • Procedures for receipt and inspection of incoming records? • A method for submittal of completed records to the storage facility?	Y	MCP-2064, Revision 5, Section 4.2, Receiving Records; Section 4.3, Transferring Records PRD-5088, Revision 19, Section 4.1.5, Receipt Control of Quality Assurance Records Note: Every ICP procedure has a Section 5, which refers to the requirements of MCP-557, Records Management
15	Is the receipt control system structured to permit a current and accurate assessment of the status of quality assurance records during the receiving process?	Y	MCP-2064, Revision 5, Section 4.2, Receiving Records; Section 4.3, Transferring Records PRD-5088, Revision 19, Section 4.1.5, Receipt Control of Quality Assurance Records

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
16	Prior to storage of quality assurance records, was a written storage procedure prepared and responsibility assigned for enforcing its requirements? Does the storage procedure include each of the following: • A description of the storage facility? • The filing system to be used? • A method for verifying that the records received are in agreement with the transmittal document and that the records are legible? • A method of verifying that the records are those designated (see No. 14 above)? • The rules governing access to and control of the files? • A method for maintaining control of and accountability for records removed from the storage facility? • A method for filing supplemental information and disposing of superseded records (see No. 11 above)?	Y	PLN-5199, Revision 2, Section C-4a (6), Records Management; Section C-7b, Records Storage MCP-2064, Revision 5, Section 6, Definitions (ISRC) PRD-5088, Revision 19, Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraph 4.1.6.11 MCP-3865, Revision 5, Appendix A, Using Box Submittal System; Appendix B, Rejected Box Correction
17	Are quality assurance records stored in a manner approved by the organizations responsible for storage, including the following: • Provisions in the storage arrangements to prevent damage from moisture, temperature and pressure? • Records firmly attached in binders or placed in folders or envelopes for storage in steel file cabinets or on shelving in containers? • Provisions for special processed records (such as radiographs, photographs, negatives and microfilm) to prevent damage from excessive light, stacking, electromagnetic fields and temperature?	Y	PLN-5199, Revision 2, Section C-7b, Records Storage PRD-5088, Revision 19, Section 4.2.3, Storing and Preserving Quality Assurance Records; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraphs 4.1.6.2 and 4.1.6.5; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraph 4.1.6.1
18	Have measures been established to preclude the entry of unauthorized personnel into the storage area?	Y	PLN-5199, Revision 2, Section C-7b, Records Storage PRD-5088, Revision 19, Section 4.2.3, Storing and Preserving Quality Assurance Records; Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraphs 4.1.6.2 and 4.1.6.5
19	Have measures been taken to provide for replacement, restoration or substitution of lost or damaged records?	Y	PLN-5199, Revision 2, Section C-7b, Records Storage PLN-1810, Revision 4, Records Recovery and Restoration Plan PRD-5088, Revision 19, Section 4.1.11, Replacement of Quality Assurance Records

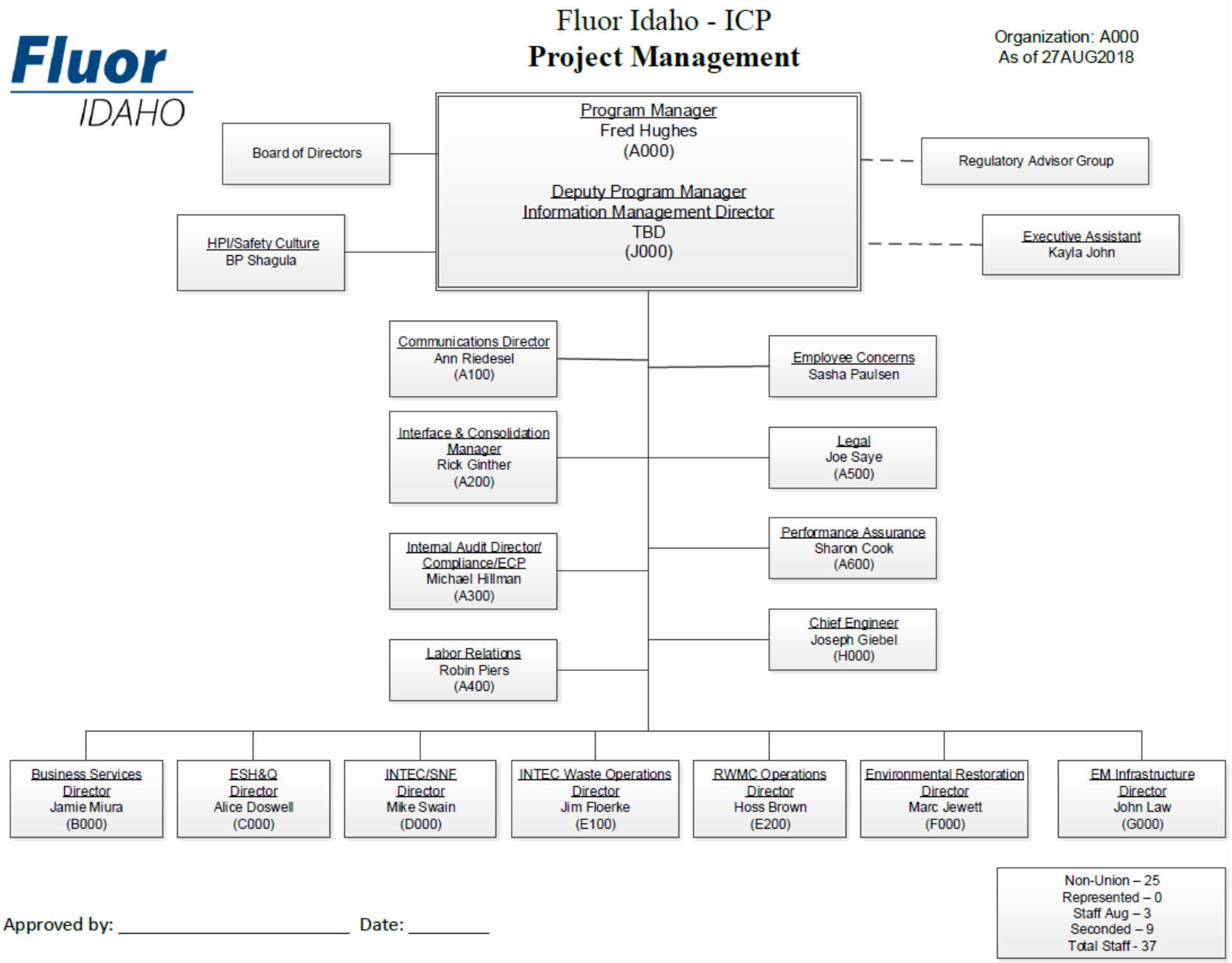
No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
20	Are records stored in a facility that minimizes the risk of damage or destruction from the following: • Natural disasters such as winds, floods or fires? • Environmental conditions such as high and low temperatures and humidity? • Infestation of insects, mold or rodents?	Y	PLN-5199, Revision 2, Section C-7b, Records Storage MCP-557, Revision 19, Section 4.5, Storing Records MCP-2064, Revision 5, Section 4.7, ISRC Integrated Pest Management and Facility Monitoring PRD-5088, Revision 19, Section 4.1.6, Permanent Storage of Quality Assurance Records, paragraph 4.1.6.1
21	Are quality assurance records stored in single or dual storage facilities?	Y	MCP-557, Revision 19, Section 4.8, Controlling Quality Assurance Records, paragraph 4.8.3.3 MCP-2064, Revision 5, Section 6, Definitions (ISRC)
22	Does the design and construction of a single record storage facility meet the following criteria: • Reinforced concrete, concrete block, masonry or equal construction? • Floor and roof with drainage control (if a floor drain is provided, a check valve (or equal) is included)? • Doors, structure and frames, and hardware designed to comply with the requirements of a minimum 2-hour fire rating? • Sealant applied over walls as a moisture or condensation barrier? • Surface sealant on the floor providing a hard-wear surface to minimize concrete dusting? • Foundation sealant and provisions for drainage? • Forced air circulation with filter system? • Fire protection system? • Only those penetrations used exclusively for fire protection, communication, lighting or temperature/humidity control are allowed (all penetrations are sealed or dampered to comply with the minimum 2-hour fire protection rating)?	Y	INEEL Record Storage Facility (Project No. 020920) Technical Specifications, Spec 264, HVAC Control System 15900-8 of 10 Examination of INL Records Storage Center by EPA Audit Team, September 19, 2018
23	Were the construction details of the quality assurance records storage facility reviewed for adequacy of protection of contents by a person who is competent in the technical field of fire protection and fire extinguishing?	Y	ID HAD-117, Revision 3, Fire Safety Assessments for IF-663 Records Storage Facility

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
24	Does the design and construction of an alternative single record storage facility meet the following criteria: • 2-hour fire rated vault meeting National Fire Protection Association (NFPA) 232-1986 or NFPA 232AM-1986 or both? • 2-hour fire rated Class B file containers meeting the requirements of NFPA 232-1986 or NFPA 232AM-1986 or both? • 2-hour fire rated file room meeting the requirements of NFPA 232-1986 or NFPA 232AM-1986 or both, with the following provisions: – Early warning fire detection and automatic fire suppression capability with electronic supervision at a constantly attended central station? – Records storage in fully-enclosed metal cabinets? – Adequate access and aisle ways? – Prohibition in the room of work not directly associated with record storage or retrieval? – Prohibition in the room of smoking, eating or drinking? – 2-hour fire rated dampers or doors in all boundary penetrations?	N/A	none
25	When temporary storage of quality assurance records is required by an organization's procedures, are the records stored in a 1-hour fire rated container? Do these procedures specify the maximum allowable time limit for temporary storage? Does the container bear a UL label (or equivalent) certifying 1-hour fire protection, or is it certified by a person competent in the technical field of fire protection?	Y	PLN-5199, Revision 2, Section C-7b, Records Storage MCP-557, Revision 19, Section 4.5, Storing Records
26	If storage at dual facilities for each quality assurance record is provided, are the facilities at locations sufficiently remote from each other to eliminate the chance of exposure to a simultaneous hazard? Although dual storage facilities are not required to satisfy the requirements of a single storage facility, are all other requirements of this standard met?	N/A	none
27	Does the storage system provide for retrieval of information in accordance with planned retrieval times, based on the record type?	Y	MCP-3865, Revision 5, Section 4.5, Retrieval of Records Stored at the ISRC
28	Is a list maintained designating those personnel who shall have access to quality assurance files?	Y	MCP-557, Revision 19, Section 4.8, Controlling Quality Assurance Records, paragraph 4.8.3.3

No.	Does the reference document adequately define, describe, address or satisfy the following:	Y, N, I, N/A*	Applicable Procedure and Paragraph; Additional Objective Evidence
29	Are records maintained by a supplier at its facility or other location accessible to the purchaser or its designated alternate (e.g., the owner)?	N/A	none
30	Are records accumulated at various locations, prior to transfer, made accessible to the owner directly or through the procuring organization?	N/A	none
31	Does the custodian of quality assurance records inventory the submittals, acknowledge receipt, and process these records in accordance with NQA-1?	Y	MCP-2064, Revision 5, Section 4.1, ICP Records Management Program Direction and Implementation; Section 4.2, Receiving Records; Section 4.3, Transferring Records; Section 4.4, Retrieving Records; Section 4.5, Returning Records to ISRC; Section 4.6, Transferring and Retrieving Records Implementation
32	Are the records storage and maintenance requirements of regulatory agencies followed in determining final disposition of quality assurance records?	Y	MCP-2064, Revision 5, Section 4.6, Dispositioning Records
33	Are the supplier's nonpermanent records disposed of only if the applicable conditions listed below are satisfied: • Items are released for shipment, a Code Data Report is signed or a Code Symbol Stamp is affixed? • Regulatory requirements are satisfied? • Operational status permits? • Warranty consideration is satisfied? • Purchaser's requirements are satisfied?	Y	MCP-2064, Revision 5, Section 4.6, Transferring and Retrieving Records, paragraph 4.6.2.2

*Y: The referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N: The referenced documents do not adequately define, describe, address or satisfy the NQA-1-1989 requirement.
I: The EPA requires additional information to determine if the referenced documents adequately define, describe, address or satisfy the NQA-1-1989 requirement.
N/A: The specific NQA-1-1989 requirement is not applicable to the subject QA program.

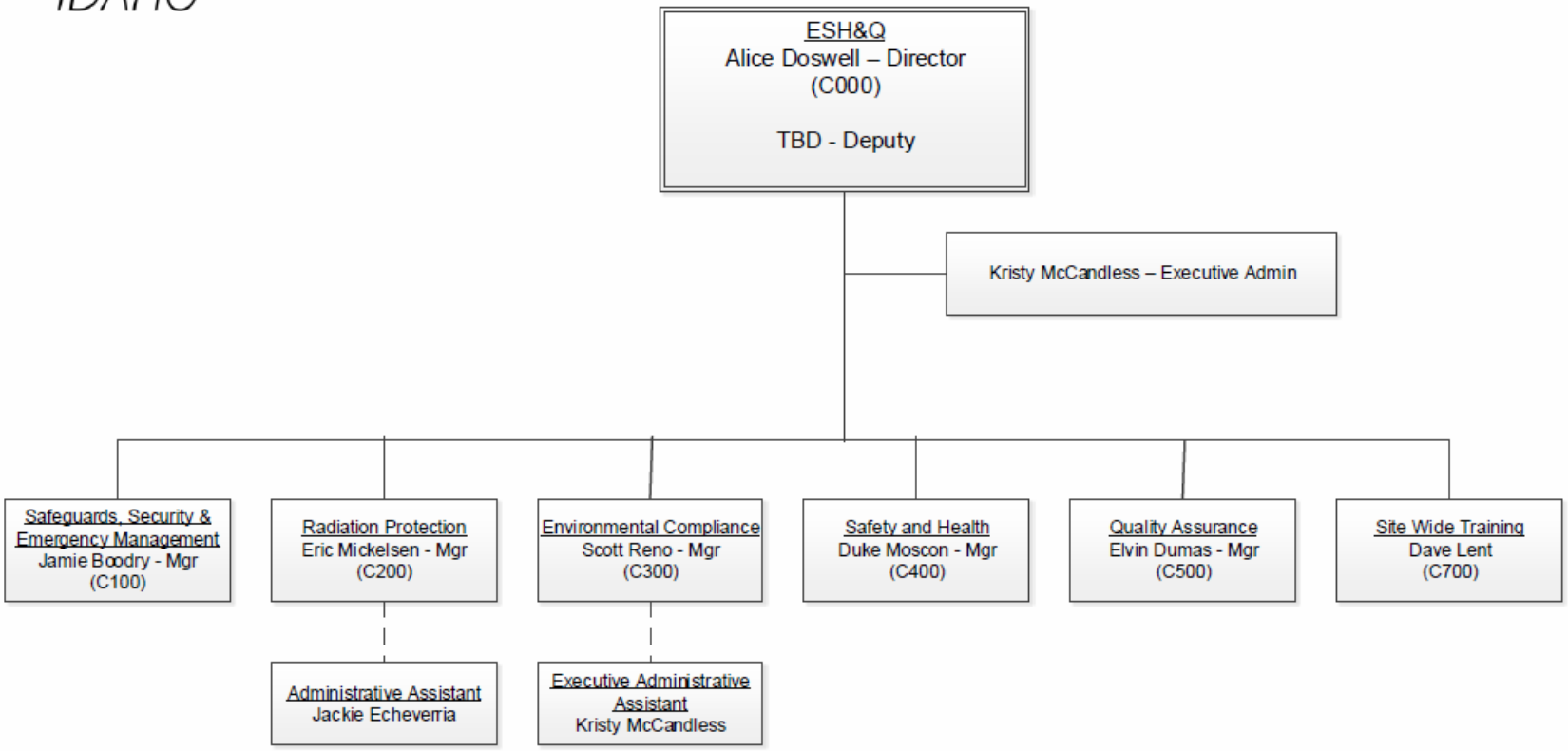
ATTACHMENT G: FLUOR IDAHO, LLC ORGANIZATIONAL CHART (EXCERPTS)



Fluor IDAHO

Fluor Idaho - ICP
ESH&Q

Organization: C000
As of 27AUG2018



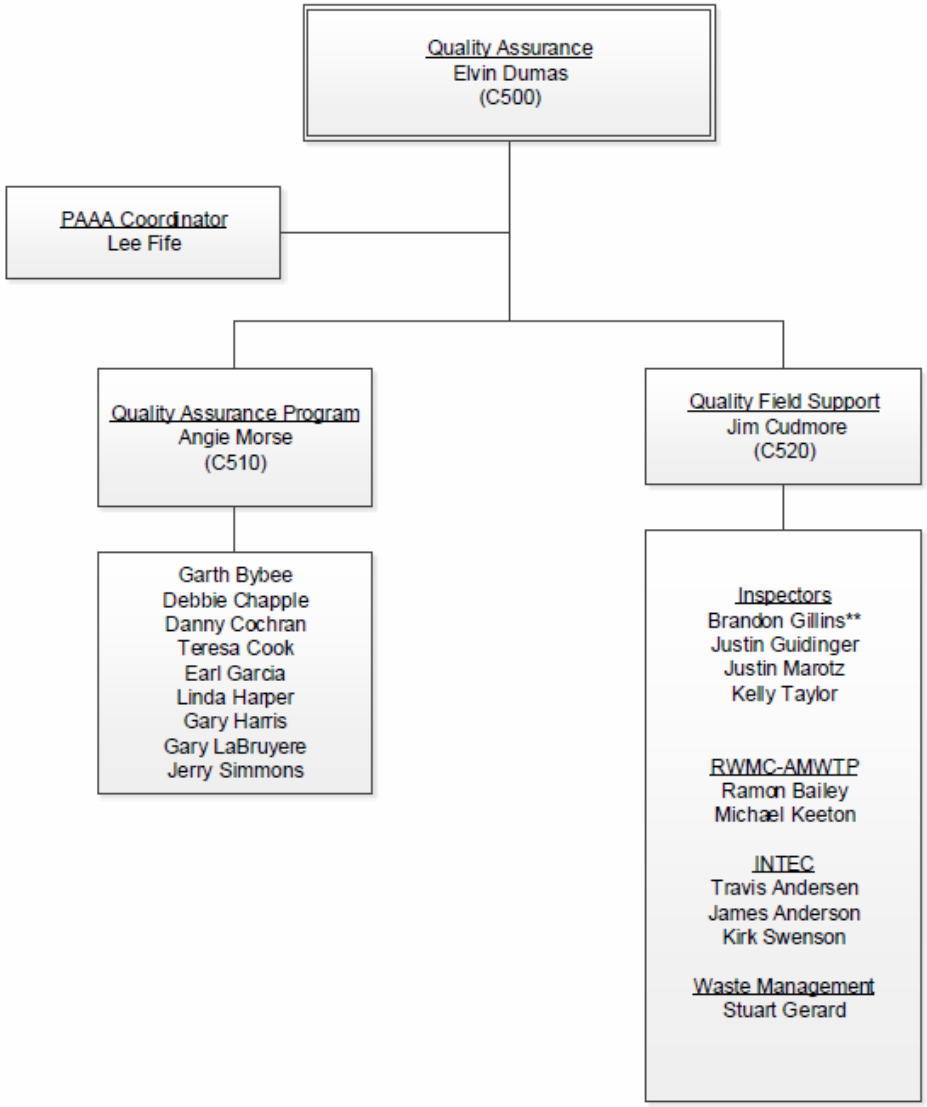
Non-Union – 194
Represented - 167
Staff Aug - 61
Seconded - 2
Total Staff - 424

Approved by: _____ Date: _____

Fluor IDAHO

Fluor Idaho - ICP
ESH&Q
Quality Assurance

Organization: C500
As of 15MAY2018
* = Matrixed Personnel
** = Subcontractor



Approved by: _____ Date: _____

ATTACHMENT H: AUDIT SCOPE (COPY)

EPA Audit of Advanced Mixed Waste Treatment Project
Quality Assurance Program

Organizations Audited:	Department of Energy Waste Generator – Advanced Mixed Waste Treatment Project (AMWTP), operated by Fluor Idaho, LLC
Organizations Notified:	Department of Energy - Carlsbad Field Office, New Mexico Environment Department, Fluor Idaho, LLC
Audit Dates:	September 18–20, 2018
Audit Location:	AMWTP QA Offices in Idaho Falls, ID.
Inspection Schedule:	To be determined upon discussions with AMWTP Quality Assurance personnel
EPA Auditors:	Jerry Ellis (EPA Lead), Kira Darlow (EPA Contractor), Patrick Kelly (EPA Contractor)
Audit Purpose:	The purpose of this audit is to verify the proper establishment and implementation of selected elements of the ASME Nuclear Quality Assurance (NQA-1-1989) implemented by Fluor Idaho, LLC with regards to activities affecting the long-term isolation of transuranic waste within the Waste Isolation Pilot Plant.
Inspection Scope:	The focus of this audit is to verify implementation of AMWTP's quality assurance program according to ASME NQA-1-1989 Element Numbers: 1. Organization; 2. Quality Assurance Program; 15. Control of Nonconforming Items; 16. Corrective Action; and 17. Quality Assurance Records. The EPA will review samples of procedures and records from AMWTP operations and perform interviews with AMWTP personnel to verify that the AMWTP QA program complies with these elements.

Initial Document and Information request. Please provide the following information no later than August 24, 2018:

- High-level AMWTP QA document(s) such as a QAPP (in 2014, QAPP-01, Revision 14, was the document that fit this description)
- Current organization charts for AMWTP and AMWTP QA, showing how AMWTP QA fits into the overall AMWTP structure and any QA positions assigned at other levels of operations, as applicable
- AMWTP procedures or project plans owned by or applicable to AMWTP QA that implement NQA-1-1989 Elements 1, 2, 15, 16 and 17, may include:

  - Training and qualification procedures, including procedures that address general training and qualification, training and qualification of audit personnel, training and qualification of inspection and test personnel and training and qualification of nondestructive examination personnel, as applicable
  - QA grading procedures
  - Corrective action procedures
  - Nonconformance procedures, including identification, reporting, control, and resolution
  - Records management procedures
- Current list of all AMWTP procedures
- List of nonconformances identified in the past 12 months, including current status
- List of issues identified as conditions adverse to quality in the past 12 months, including current status and indication if determined to be a significant condition adverse to quality
- Current list of open corrective actions
- Corrective action trend report
- Any program description documents
- Documents describing interfaces with other organizations (internal and external) responsible for completing QA activities
- Key position descriptions

If you have any questions, please contact Jerry Ellis at 202-564-2766.

ATTACHMENT I: DESCRIPTIONS OF NQA-1 BASIC REQUIREMENTS (ELEMENTS)[3]

As stated in the introduction to the American Society of Mechanical Engineers NQA-1-1989 standard, the requirements of the standard apply to activities which could affect the quality of structures, systems, and components of nuclear facilities. Activities affecting quality include siting, designing, purchasing, fabricating, handling, shipping, receiving, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, modifying, and decommissioning. "Entity," in the context of this summary, refers to the organization responsible for implementing the ASME NQA-1-1989 standard.

The summaries included in this attachment are for general information only and are not intended to supersede the language of ASME NQA-1-1989.

Element 1, *Organization*, requires that the entity document the following for activities affecting quality:

- Organizational structure
- Functional responsibilities
- Levels of authority
- Lines of communication

The entity shall establish the organizational structure and responsibilities such that:

- Senior management establishes overall expectations for effective QA program implementation and is responsible for obtaining desired end result.
- Quality is achieved and maintained by those performing work.
- Quality achievement is verified by those not directly responsible for performing work.
- Persons responsible for assuring implementation of the QA program have required authority and organization freedom, including sufficient independence from cost and schedule considerations.

Element 2, *QA Program*, requires that the QA program be planned, implemented and maintained, and that management shall regularly assess the adequacy and effective implementation of the QA program. The QA program shall:

- Identify the activities and items to which it applies.
- Provide control over activities affecting quality consistent with their importance (i.e., follow a graded approach to apply varying degrees of control and verification to items and services to ensure compliance with requirements).

3 Adapted from: History, Evolution and Content of NQA-1, Ron Schrotke, Member, ASME NQA-1 Main Committee and ASME Board of Nuclear Codes and Standards, presented on May 14, 2015, to DOE Quality Assurance Framework: Application to DOE Nuclear Projects, Emphasis on ASME NQA-1, Training Workshop.

- Provide for planning and accomplishment of activities affecting quality under suitably controlled conditions.
- Provide for indoctrination and training of personnel, as necessary, including inspection and test personnel, nondestructive examination personnel and QA program audit personnel.

Element 3, *Design Control*, requires that designs, including design inputs, design documents, design interfaces and design changes be defined, controlled and verified. Design adequacy shall be verified by qualified persons that were not part of the original design work.

Element 4, *Procurement Document Control*, requires that procurement documents include applicable design bases and other technical and quality requirements, including any requirements for the supplier's quality assurance program to be consistent with ASME NQA-1-1989. Procurement documents and changes to these documents shall be reviewed for completeness and adequacy prior to issuance to the supplier.

Element 5, *Instructions, Procedures and Drawings*, requires that activities affecting quality be performed in accordance with documented instructions, procedures or drawings, as appropriate to the activity. The instructions, procedures or drawings shall include quantitative or qualitative acceptance criteria for determining successful completion of the activity.

Element 6, *Document Control*, requires that documents, including those identified in Element 5, that specify quality requirements or prescribe activities affecting quality be controlled. The document control system includes identification of documents to which it applies; assignment of responsibility for preparing, reviewing, approving, and issuing documents; and review of documents, including changes to the documents, prior to issuance.

Element 7, *Control of Purchased Items and Services*, requires that procurement of items and services be controlled to assure conformance with specified criteria. Requirements are specified to achieve control of procurement planning, source evaluation and selection, bid evaluation, supplier performance evaluation, supplier generated documents, changes in items or services, acceptance of items or services, supplier nonconformances, and commercial grade items and services.

Element 8, *Identification and Control of Items*, requires that controls be established to assure only correct and accepted items are used or installed and that identification be maintained on items or documents traceable to the items.

Element 9, *Control of Special Processes*, applies to processes that require a high degree of skill and cannot be verified after completion (e.g., heat treating, welding, etc.). These processes shall be performed by qualified personnel using specified instructions, procedures, drawings, checklists, process travelers or other appropriate means that also specify the acceptance criteria.

Element 10, *Inspection*, requires inspections be performed to verify conformance of an item or activity to specified requirements or continued acceptability of items in service. Inspection personnel shall be independent of the work being inspected and the inspection results shall be documented.

Element 11, *Test Control*, requires that tests to be performed to verify conformance of an item or computer program to specified requirements and demonstrate satisfactory performance shall be planned and executed according to specified methods and evaluated against specified criteria. Test results shall be documented.

Element 12, *Control of Measuring and Test Equipment*, requires that tools, gauges, instruments and other measuring and test equipment used for activities affecting quality be controlled, calibrated at specific periods, adjusted and maintained to required accuracy limits.

Element 13, *Handling, Storage and Shipping*, requires that handling, storage, cleaning, packaging, shipping and preservation of items be conducted in accordance with established documents or procedures to prevent damage and loss and to minimize deterioration.

Element 14, *Inspection, Test, and Operating Status*, requires that the status of inspection and test activities be identified either on the items or in documents traceable to items where it is necessary to ensure that required inspections and tests are performed and only those items that passed the required inspections or tests are installed, used and operated.

Element 15, *Control of Nonconforming Items*, requires that items not conforming to specified requirements be controlled to prevent inadvertent installation or use. Nonconforming items shall be identified and segregated when practical. The nonconformances shall be documented and evaluated. Disposition of the nonconforming items shall be documented, and the affected organizations notified.

Element 16, *Corrective Action*, requires that conditions adverse to quality be identified promptly and corrected as soon as practical. Additional requirements apply to significant conditions adverse to quality:

- The cause of the condition shall be determined.
- Corrective action shall be taken to preclude recurrence.
- The identification, cause and corrective action shall be documented and reported to appropriate levels of management.
- Completion of corrective actions shall be verified.

Element 17, *Quality Assurance Records*, requires that records providing evidence of quality be specified, prepared and maintained. Records shall be protected against loss, damage or deterioration and shall be legible, identifiable and retrievable. The records control system shall specify requirements and responsibilities for record generation, transmittal, distribution, retention, maintenance and disposition.

Element 18, *Audits*, requires that audits be performed to verify compliance with all aspects of the QA program and determine the effectiveness of the QA program. Audits shall be planned and performed in accordance with written procedures or checklists. The audit team shall be independent of the activities being audited and shall include at least one lead auditor appointed to lead the audit; the lead auditor shall select and assure qualification of the rest of the audit team. Audit results shall be documented and reported to and reviewed by responsible management;

responsible management shall respond to adverse audit findings as appropriate and the auditing organization shall follow up to verify completion of corrective action.