

November 27, 2013

Andy Clark, President  
Assurance Technical Services  
400 Park Avenue  
Delaware OH 43015

SUBJECT: NUCLEAR REGULATORY COMMISSION INSPECTION OF ASSURANCE  
TECHNICAL SERVICES REPORT NO. 99901430/2013-201

Dear Mr. Clark:

From October 22 to October 25, 2013, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Assurance Technical Services (ATS), facility in Delaware, OH. The purpose of the limited-scope inspection was to assess ATS's compliance with the provisions of selected portions of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR Part 21, "Reporting of Defects and Noncompliance."

This inspection specifically evaluated ATS's testing of safety-related components for the US operating reactor plants. The enclosed report presents the results of this inspection. This NRC inspection report does not constitute NRC endorsement of your overall quality assurance (QA) or 10 CFR Part 21 programs.

During this inspection, the NRC staff looked at harsh environment qualification testing of safety-related motor actuated valves, solenoid valves and pressure transmitters associated with inspections, tests, analyses, and acceptance criteria (ITAAC) from Revision 19 to the certified AP1000 Design Control Document, Tier 1. Specifically, these activities were associated with ITAAC 2.1.02.07a.i, 2.2.02.06a.i, 2.2.04.7a.i, 2.3.02.06a.i, 2.3.06.07a.i, and 2.2.03.07a.i. The NRC inspection team did not identify any findings associated with the ITAAC contained in Section (4) of the attachment to this report.

Based on the results of this inspection, the NRC inspection team found that the implementation of your QA program meets NRC requirements imposed on you by your customers or NRC licensees. Within the scope of this inspection, no violations or nonconformances were identified. No response is required.

In accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's Rules of Practice, a copy of this letter, its enclosures, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system, Agencywide Documents Access and Management System, which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

A. Clark

- 2 -

If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

Sincerely,

*/RA/*

Richard A. Rasmussen, Chief  
Electrical Vendor Inspection Branch  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

Docket No.: 99901430

Enclosures:

1. Inspection Report 99901430/2013-201

A. Clark

- 2 -

If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request that such material is withheld from public disclosure, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

Sincerely,

*/RA/*

Richard A. Rasmussen, Chief  
Electrical Vendor Inspection Branch  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

Docket No.: 99901430

Enclosures:

- 1. Inspection Report 99901430/2013-201

**DISTRIBUTION:**

ASakadales  
ERoach  
KKavanagh  
Andy.Clark@ATS-3me.com  
Ed.Thomas@ATS-3me.com  
AP1000 CONTACTS

**ADAMS Accession No.:** ML13322B348 \*Concurred via email NRO-002

<b>OFFICE</b>	NRO/DCIP/EVIB	NRO/DCIP/MVIB	NRO/DCIP/QVIB
<b>NAME</b>	DBollock	AArmstrong	AKeim
<b>DATE</b>	11/19/2013	11/19/2013	11/19/2013
<b>OFFICE</b>	NRO/DCIP/IGCB	NRO/DCIP/EVIB	
<b>NAME</b>	BAnderson	RRasmussen	
<b>DATE</b>	11/27/2013	11/27/2013	

**OFFICIAL RECORD COPY**

**U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF NEW REACTORS  
DIVISION OF CONSTRUCTION INSPECTION AND OPERATIONAL PROGRAMS  
VENDOR INSPECTION REPORT**

Docket No.: 99901430

Report No.: 99901430/2013-201

Vendor: Assurance Technical Services  
400 Park Avenue  
Delaware, OH 43015

Vendor Contact: Andy Clark  
Andy.Clark@ATS-3me.com  
740-369-8811

Background: Assurance Technical Services, is a provider of testing of safety-related components and qualification testing services for the US commercial nuclear fleet.

Inspection Dates: August 22-25, 2013

Inspection Team Leader: Douglas Bollock, NRO/DCIP/EVIB

Inspectors: Aaron Armstrong, NRO/DCIP/MVIB  
Andrea Keim, NRO/DCIP/QVIB

Approved by: Richard A. Rasmussen, Chief  
Electrical Vendor Inspection Branch  
Division of Construction Inspection  
and Operational Programs  
Office of New Reactors

## EXECUTIVE SUMMARY

Assurance Technical Services  
99901430/2013-201

The U.S. Nuclear Regulatory Commission (NRC) conducted this vendor inspection to verify that Assurance Technical Services (hereafter referred to as ATS), implemented an adequate quality assurance (QA) program that complies with the requirements of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR Part 21, "Reporting of Defects and Noncompliance."

This inspection specifically evaluated ATS's testing and qualification of safety-related components for operating and new construction commercial nuclear plants in the US. The NRC inspection team reviewed the procurement, test set up and qualification testing of safety-related components, along with reviewing ATS's corrective action and 10 CFR Part 21 program. The NRC conducted this inspection at ATS's facility in Delaware, OH.

The following regulations served as the bases for this NRC inspection:

- Appendix B to 10 CFR Part 50
- 10 CFR Part 21

The inspectors used Inspection Procedure (IP) 43002, "Routine Inspections of Nuclear Vendors," dated July 15, 2013, and IP 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance" dated February 13, 2012.

The information below summarizes the results of this inspection.

### 10 CFR Part 21

The inspectors determined that ATS appropriately translated the requirements of 10 CFR Part 21 into their implementing procedures and, for those activities that the inspectors reviewed, implemented them as required by ATS procedures. No findings of significance were identified.

### Procurement and Oversight of Suppliers

The inspectors determined that ATS's procurement processes conformed to the requirements of Criteria IV, "Procurement Document Control," and VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50. No findings of significance were identified.

### Testing

The NRC inspectors determined that ATS's policy and procedures for testing controls satisfy the regulatory requirements set forth in Criterion XI, "Test Control," Appendix B to 10 CFR Part 50. No findings of significance were identified.

### Nonconformances and Corrective Actions

The inspectors determined that the implementation of ATS's programs for control of nonconforming material, parts, or components and corrective action were consistent with the regulatory requirements in Criterion XV, "Nonconforming Materials, Parts, or Components," and Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50. No findings of significance were identified.

### Measuring and Test Equipment

The NRC inspectors concluded that ATS has established a program that adequately controls calibration and use of measuring and test equipment in accordance with the regulatory requirements of Criterion XII, "Control of Measuring and Test Equipment," of Appendix B to 10 CFR Part 50. No findings of significance were identified.

### Internal Audits

The NRC inspection team determined that ATS has established a program that adequately controls inspection activities in accordance with the regulatory requirements of Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50. The NRC inspection team determined that ATS is effectively implementing its internal audit program. No findings of significance were identified.

## **REPORT DETAILS**

### **1. 10 CFR Part 21 Program**

#### **a. Inspection Scope**

The inspectors reviewed ATS's policies and implementing procedures that govern its Title 10 of the Code of Federal Regulations (10 CFR) Part 21 program to verify compliance with the requirements of 10 CFR Part 21. The inspectors also reviewed ATS's procedures that govern corrective actions and the control and correction of nonconforming items to verify an adequate link to the 10 CFR Part 21 process. Standard Operating Plan SOP 4.28-01, "Reporting of Defects and Noncompliance," and ATS Quality Assurance System Manual Section 4.28 establish the requirements for ATS's compliance with the requirements in 10 CFR Part 21. The inspectors reviewed ATS's 10 CFR Part 21 policy and procedures and related documentation, and interviewed the QA Director and staff members of ATS. The team inspected a sample of ATS's purchase orders (PO) for compliance with 10 CFR Part 21. The inspection team also verified that SOP 4.28-01 provides adequate guidance for the different timing requirements for 10 CFR Part 21 evaluations, notification, and reporting activities.

#### **b. Observations and Findings**

No findings of significance in this area.

#### **c. Conclusions**

The inspectors determined that ATS appropriately translated the requirements of 10 CFR Part 21 into implementing procedures and, for those activities that the inspectors reviewed, implemented them as ATS procedures required.

### **2. Procurement and Oversight of Suppliers**

#### **a. Inspection Scope**

The inspectors reviewed ATS's policies and procedures for procurement processes to verify compliance with Criterion IV and Criterion VII of Appendix B to 10 CFR Part 50. The inspectors evaluated ATS's procurement controls and procedures established in ATS's Quality Program Manual (QPM) and ATS SOP 4.07-02, Special Grade Purchasing. The inspectors also reviewed PO#120228DYN, Clark Dynamic Tests Lab procurement of qualification testing from ATS and PO#4500466510, Westinghouse procurement of testing services from Clark Dynamic Tests Lab, to ensure they included the regulatory requirements, design basis, and other applicable requirements in procurement documents for safety related components for the US operating reactors.

The NRC inspection team reviewed ATS SOP 4.07-01, "Special Grade Supplier Approval" which is a high-level document governing the approval of suppliers. Specifically, it includes the commercial dedication process that ATS uses to qualify suppliers of calibration services.

In addition to the calibration services, the inspectors reviewed the commercial grade survey documentation for Applied Technical Services. Applied Technical Services provide chemical analysis of test spray samples.

The inspectors reviewed the process and documentation used by ATS to place commercial-grade calibration and testing laboratories on their approved suppliers list. The staff reviewed a sample of purchase orders and associated receiving verification forms to verify appropriate quality and technical requirements where identified.

b. Observations and Findings

No findings of significance in this area.

c. Conclusions

The inspectors determined that ATS's procurement processes conformed to the requirements of Criteria IV, "Procurement Document Control," and VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50.

**2. Testing**

a. Inspection Scope

The NRC inspectors reviewed ATS's policies and procedures governing the implementation of its test program to verify compliance with Criterion XI, "Test Control," of Appendix B to 10 CFR Part 50. The NRC inspectors evaluated equipment qualification testing related to Westinghouse AP1000 nuclear power plants. Specifically, the inspection reviewed ATS's SOP 4.13-01, "Special Grade Test Control," procedures and the implementation of ATS's test plan ATS TP 12-001-02, "Westinghouse AP1000 Containment Design Basis Testing Qualification Test Procedure for the Peerless 150ft-lb DC Motor installed on the Limitorque SB3-150 Valve Actuator," to ensure they included testing and regulatory requirements.

The NRC inspectors confirmed that Westinghouse's AP1000 containment design basis accident qualification testing for the Peerless 150ft.lb DC motor requirements were adequately translated to ATS's test plan. The ATS qualification testing included baseline operational testing, pressurization cycle testing and design basis accident testing. The inspectors observed the qualification testing setup and implementation of design basis accident qualification testing.

The NRC inspectors reviewed the Main Steam Line Break (MSLB) test on Automatic Valve Corporation (AVCO) model U solenoid operated valves U1407GBBR-DDR and U0405GABR-DDS.

The inspectors also reviewed the Design Basis Accident (DBA) testing of Ultra DTN2070 series pressure and differential pressure transmitters for safety related applications.

b. Observations and Findings

With the exception of AVCO model U solenoid operated valve U0405GABR-DDS, all other observed or reviewed testing completed by ATS was successful. AVCO model U solenoid operated valve U0405GABR-DDS had a catastrophic ground fault within 40 seconds of the MSLB initiation. ATS captured this failure in the test report and informed all responsible parties.



c. Conclusions

The NRC inspectors concluded that ATS's policy and procedures for testing controls satisfy the regulatory requirements set forth in Criterion XI, "Test Control," Appendix B to 10 CFR Part 50.

**3. Measuring and Test Equipment**

a. Inspection Scope

The NRC inspectors reviewed the implementation of ATS's measuring and test equipment (M&TE) program in support of the design basis accident qualification testing of the Peerless 150 ft•lb DC motor installed on the Limitorque SB3-150 valve actuator for the Westinghouse AP1000 reactor design. Specifically, the NRC inspectors reviewed the policies and procedures governing the implementation of ATS's M&TE program to verify compliance with the regulatory requirements of Criterion XII, "Control of Measuring and Test Equipment," of Appendix B to 10 CFR Part 50. In addition, the inspectors discussed the control of the M&TE program with ATS management and technical staff. Furthermore, the inspectors reviewed the calibration records for a sample of M&TE, verified the implementation of M&TE control through direct observation of inspection activities of ATS personnel and review of certificates of calibration for a sample of M&TE.

The NRC inspectors evaluated a sample of M&TE associated with the DBA testing. The inspectors confirmed that the instruments were calibrated and appropriate for the range of operation for each described activity.

The inspectors reviewed ATS's "Special Grade Supplier Approval" documentation for procurement of chemicals (for pH meter) and analysis services from Inorganic Ventures and Calibration Services from Webber Gage in accordance with procedure SOP 4.07-01, "Special Grade Supplier Approval." The documentation included equipment/parameter, range, calibration and measurement capability, and calibration laboratory accreditation documentation.

The inspectors did not identify any equipment that was out of tolerance. The inspectors reviewed the procedures to verify ATS's process for out of tolerance equipment includes guidance for appropriately dispositioning equipment and determining extent of condition for jobs the equipment was used on and what effect it had on acceptance testing.

b. Observations and Findings

No findings of significance in this area.

c. Conclusions

The NRC inspectors concluded that ATS has established a program that adequately controls calibration and use of M&TE in accordance with the regulatory requirements of Criterion XII, "Control of Measuring and Test Equipment," of Appendix B to 10 CFR Part 50.

#### **4. Nonconformances and Corrective Actions**

##### **a. Inspection Scope**

The inspectors reviewed ATS's policies and procedures governing the implementation of nonconforming components and corrective actions to verify compliance with Criterion XV, "Nonconforming Materials, Parts, or Components," and Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50. The inspectors reviewed ATS documented conditions adverse to quality such as Corrective/Preventative Actions (CPAR), Deviation Records (DR), Notice of Anomalies (NOA) to customers and Defect/Noncompliance Records (DNR). In addition, the inspectors conducted several interviews of ATS's management and technical staff about the evaluation of nonconforming components and corrective actions. The inspectors also verified that ATS's nonconformance process provides guidance to evaluate nonconformances for reportability under ATS's 10 CFR Part 21 program.

##### **b. Observations and Findings**

No findings of significance in this area were identified.

##### **c. Conclusions**

The inspectors determined that the implementation of ATS's programs for control of nonconforming material, parts, or components and corrective action were consistent with the regulatory requirements in Criterion XV and Criterion XVI of Appendix B to 10 CFR Part 50.

#### **5. Internal Audits**

##### **a. Inspection Scope**

The NRC inspection team reviewed audit policies and procedures to determine if ATS's controls were in compliance with the regulatory requirements of Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50. In addition, the inspectors discussed the internal audit program with personnel responsible for the planning and implementation of internal audits and reviewed completed audits and auditor qualifications to verify audit program implementation.

The inspectors reviewed ATS procedure SOP 4.20-00, "Customer Audits," which describes the audit program and gives guidelines and a general overview of the performance of internal audits.

The inspectors evaluated the most recent audits performed on ATS and the inspectors verified the audits for testing activities were successfully completed with all discrepancies noted or tracked for adequate audit completion.

##### **b. Observations and Findings**

No findings of significance in this area were identified.

c. Conclusions

The NRC inspection team determined that ATS has established a program that adequately controls inspection activities in accordance with the regulatory requirements of Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50. The NRC inspection team determined that ATS is effectively implementing its internal audit program.

7. **Entrance and Exit Meetings**

On October 22, 2013, the NRC inspection team presented the inspection scope during an entrance meeting with Mr. Andy Clark President of ATS, and Ed Thomas, Quality Assurance Manager of ATS. On October 25, 2013, the inspectors presented the inspection results during an exit meeting with Mr. Clark and other ATS personnel.

## ATTACHMENT

### 1. PERSONS CONTACTED AND NRC STAFF INVOLVED:

Name	Title	Affiliation	Entrance	Exit	Interviewed
Andy Clark	President	ATS	X	X	X
J. Edward Thomas	Quality Assurance Manager	ATS	X	X	X
Christopher Bigler	Test Engineer	ATS			X
Michael Holloway	Test Engineer	ATS			X
Dennis Brooks	Mechanic	ATS			X
Gary Felicetti	Quality Assurance Manager	Clark Testing		X	
Brian Schleger	Engineering	Westinghouse		X	
Ed Drake (via phone)	Licensing	Westinghouse		X	
Douglas Bollock	Inspection Team Leader	NRC	X	X	
Aaron Armstrong	Inspection Team Member	NRC	X	X	
Andrea Keim	Inspection Team Member	NRC	X	X	

### 2. INSPECTION PROCEDURES USED:

IP 43002, "Routine Inspections of Nuclear Vendors"

IP 43004, "Inspection of Commercial-Grade Dedication Programs"

IP 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance"

### 3. ITEMS OPENED, CLOSED, AND DISCUSSED:

None

### 4. INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA:

The U.S. Nuclear Regulatory Commission (NRC) inspection team identified the following inspections, tests, analyses, and acceptance criteria (ITAAC) related to components being designed, manufactured, and tested at ATS. At the time of the inspection, ATS was involved in environmental testing of Limitorque SB3-150 Motor-Operated Valves, Ultra DTN2070 series pressure and differential pressure transmitters and AVCO model U solenoid operated valves U1407GBBR-DDR and U0405GABR-DDS for the AP1000 reactor design. For the ITAAC listed below, the NRC inspection team reviewed ATS's quality assurance controls in the areas of test control, oversight of contracted activities, control of measuring and test equipment, nonconforming materials parts and

components, and corrective actions. The ITAAC design commitments referenced below are for future use by the NRC staff during the ITAAC closure process; the listing of these ITAAC design commitments does not constitute that they have been met and/or closed. The NRC inspection team did not identify any findings associated with the ITAAC identified below.

<b>ITAAC</b>	<b>Design Commitment</b>	<b>Component</b>
2.1.02.07a.i (24)	7.a) The Class 1E equipment identified in Table 2.1.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	Limatorque SB3-150 MOV; Ultra DTN2070 series pressure and differential pressure transmitters
2.2.02.06a.i (131)	6.a) The Class 1E components identified in Table 2.2.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	Limatorque SB3-150 MOV; Ultra DTN2070 series pressure and differential pressure transmitters
2.2.04.07a.i (231)	7.a) The Class 1E equipment identified in Table 2.2.4-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	Limatorque SB3-150 MOV; Ultra DTN2070 series pressure and differential pressure transmitters
2.3.02.06a.i (294)	6.a) The Class 1E equipment identified in Table 2.3.2-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	Limatorque SB3-150 MOV

<b>ITAAC</b>	<b>Design Commitment</b>	<b>Component</b>
2.3.06.07a.i (366)	7.a) The Class 1E equipment identified in Tables 2.3.6-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	Limitorque SB3-150 MOV
2.2.03.07a.i (170)	7.a) The Class 1E equipment identified in Table 2.2.3-1 as being qualified for a harsh environment can withstand the environmental conditions that would exist before, during, and following a design basis accident without loss of safety function for the time required to perform the safety function.	Ultra DTN2070 series pressure and differential pressure transmitters; AVCO model U solenoid operated valves U1407GBBR-DDR and U0405GABR-DDS

**5. DOCUMENTS REVIEWED:**

ATS Procedures

ATS QAS-NQA1, "Quality Assurance System Manual," Revision 1, June 27, 2013

SOP 4.28-01, "Reporting of Defects and Noncompliance," Revision 0, May 2, 2011

SOP 4.17-01, "Corrective & Preventative Action," Revision 1, April 13, 2011

SOP 4.29-01, "Deviations," Revision 1, April 14, 2011

SOP 4.26-01, "Hold & Notification Points," Revision 0, May 4, 2011

SOP 4.07-01, "Special Grade Supplier Approval," Revision 3, April 30, 2013

SOP 4.07-02, "Special Grade Purchasing," Revision 1, April 24, 2013

SOP 4.05-02, "Document Control," Revision 1, April 14, 2011

SOP 4.06-01, "Project Logbooks," Revision 0, April 21, 2011

SOP 4.13-01, "Special Grade Test Control," Revision 0, May 6, 2011

SOP 4.14-01, "Measurement Standards," Revision 0, May 12, 2011

SOP 4.14-02, "Calibration," Revision 0, May 10, 2011

SOP 4.14-03, "Measuring Instruments," Revision 0, May 13, 2011

SOP 4.14-04, "Measurements," Revision 0, May 13, 2011

TP 12-001-02, "Westinghouse AP1000 Containment Design Basis Accident Qualification Test Procedure for the Peerless 150 ft.lb DC Motor Installed on the Limitorque SB3-150 Valve Actuator," Revision 2, October 14, 2013

PR 12-002-01, "W AP1000 Environmental Zone 5 Design Basis Accident Qualification Test of the Automatic Valve Corporation Model U Series Solenoid Valves," Revision 0, November 20, 2012

TP 12-002-01, "Westinghouse AP1000 Environmental Zone 5 Design Basis Accident Qualification Test Procedure for the Automatic Valve Corporation Model U Series Solenoid Valves," Revision 1, August 6, 2012

TP 12-010-01, "Westinghouse AP1000 Environmental Zone 1 Design Basis Accident Qualification Test Procedure for the Ultra Electronics DTN2070 Series Pressure Transmitters," Revision 0, October 2, 2012

#### ATS Nonconformance Reports and Corrective Actions

CPAR 13-03, March 18, 2013

CPAR 13-04, March 18, 2013

CPAR 13-05, March 18, 2013

CPAR 13-07, October 11, 2013

CPAR 11-02, June 13, 2011

CPAR 11-03, July 12, 2011

CPAR 11-01, May 3, 2011

DR 11-033 #001, November 7, 2012

DR 12-008 #001, June 6, 2012

DR 08-016 #001, March 22, 2011

DR 12-001 #001, October 8, 2013

NOA 12-001-02, dated October 7, 2013

DNR 13-01, dated October 7 2013

#### Audits

Audit No. ATS-GIA-12 conducted by Nuclear Quality Oversight on ATS, October 23-24, 2012

#### Commercial Grade Survey

Applied Technical Services – verify testing method, material control, M&TE calibration control and scope of certification in regards to ICP testing of Boron and Phosphorus solutions, September 18-19, 2013

#### Procurement Documents

PO#120228DYN, Clark Dynamic Tests Lab procurement of qualification testing from ATS, Revision 4, 19 September 2013

PO#4500466510, Westinghouse procurement of testing services from Clark Dynamic Tests Lab, Revision 0, 1 August 2013

ATS PO#13113 to Cal Tech labs of Ohio, Inc. to calibrate Agilent Meter and HP Digital Multimeter, May 13, 2013

ATS PO#13118-01 to Morehouse Instrument Company for tension and compression calibration of Proving Ring, May 24, 2013

ATS PO#13122 to Morehouse Instrument Company for compression calibration of Proving Ring, June 4, 2013

ATS PO#13014 to Instrulab Inc., for calibration services, November 20, 2012

ATS PO#12973 to Transcat, calibrate guideline current shunt, September 12, 2012

#### Measuring and Test Equipment Documents

Calibration Report 021972 for pH meter, October 22, 2013

Calibration Report 021973 for temperature on pH meter, October 22, 2013

Calibration Record 021941 for Chamber Temperature Channel 00, October 11, 2013

Calibration Record 021942 for Chamber Temperature Channel 01, October 11, 2013

Calibration Record 021965 for Motor Current meter, October 19, 2013

Calibration Record 021963 for Torque Meter, October 20, 2013

Calibration Record 021930 for Flow Meter, October 10, 2013

Calibration Record 021964 for Torque Meter, October 20, 2013

Calibration Record 021940 for Pressure monitor, October 10, 2013

Calibration Record 021909 for Temperature on pH meter, September 30, 2013

#### Miscellaneous Documents

APP-PV95-VP-001, "Equipment Design Requirements for Safety-Related Limitorque Motor Actuator Test Specimens, Revision 2, July 2012

APP-PV95-VPH-005, "AP1000 TEST PLAN FOR 10-YEAR QUALIFICATION OF PEERLESS DC MOTORS," Revision 1, June 2013

IEEE 323-1974, "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations," 1974

IEEE 344-1975, "IEEE Recommended Practice for Seismic Qualification of Class 1E



6. **ACRONYMS USED:**

ADAMS	Agencywide Documents Access and Management System
ATS	Assurance Technical Services
CGD	commercial grade dedication
CFR	<i>Code of Federal Regulations</i>
DCIP	Division of Construction Inspection and Operational Programs
EVIB	Electrical Vendor Inspection Branch
IP	inspection procedure
M&TE	measuring and test equipment
NON	Notice of Nonconformance
NRC	(U.S.) Nuclear Regulatory Commission
NRO	Office of New Reactors
PO	purchase order
QA	quality assurance
SOP	Standard Operation Procedures
U.S.	United States (of America)