October 7, 2013

Tom Woelfersheim, Quality Assurance Manager
Argo Turboserve Corporation Nuclear- NY
588 Broadway
Schenectady, NY 12305

SUBJECT: NUCLEAR REGULATORY COMMISSION INSPECTION REPORT
NO. 99901429/2013-201 AND NOTICE OF NONCONFORMANCE

Dear Mr. Woelfersheim:

From August 19 to August 23, 2013, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Argo Turboserve Corporation Nuclear- NY (ATC), facility in Schenectady, NY. The purpose of the limited-scope inspection was to assess ATC'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 ATC's dedication 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.

Based on the results of this inspection, the NRC inspection team found that the implementation of your QA program did not meet certain NRC requirements imposed on you by your customers or NRC licensees. Specifically, ATC used qualification by similarity analysis for Radiation Equipment interface boxes, however, ATC failed to analyze if material changes made to the base and enclosure invalidate the qualification for the device by making it more susceptible to harsh environmental characteristics, therefore deteriorating its performance. The enclosed Notice of Nonconformance (NON) cites this nonconformance, and the circumstances surrounding it are described in detail in the enclosed inspection report.

Please provide a written statement or explanation within 30 days from the date of this letter in accordance with the instructions specified in the enclosed NON. The NRC will consider extending the response time if you show good cause for the agency to do so.

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.

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.: 99901429

Enclosures:
1. Notice of Nonconformance
2. Inspection Report 99901429/2013-201

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DISTRIBUTION:
ASakadales
ERoach
KKavanagh
twoelfersheim@argoturbo.com
rchalifoux@argoturbo.com
mbowman@argoturbo.com

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OFFICE	NRO/DCIP/EVIB	NRO/DCIP/EVIB	NRO/DCIP/EVIB	NRO/DCIP/EVIB
NAME	DBollock	GLipscomb	SSmith	ARamirez
DATE	9/24/2013	9/24/2013	9/30/2013	9/25/2013
OFFICE	NRO/DCIP/EVIB	NRO/DCIP/EVIB	NRO/Enforcement	
NAME	JJimenez	RRasmussen	TFrye	
DATE	9/24/2013	10/7/2013	9/26/2013	

OFFICIAL RECORD COPY

NOTICE OF NONCONFORMANCE

Argo Turboserve Corporation- Nuclear -NY. Docket No.: 99901429
Schenectady, NY. Inspection Report No.: 99901429/2013-201

Based on the results of a Nuclear Regulatory Commission (NRC) inspection conducted at the Argo Turboserve Corporation Nuclear - NY (ATC) facility in Schenectady, NY, from August 19 - 23, 2013, of activities performed at ATC it appears that one activity was not conducted in accordance with NRC requirements contractually imposed upon ATC by NRC licensees:

A. Criterion III, "Design Control," of Appendix B to Title 10 of the Code of Federal Regulations (10 CFR) Part 50, states, in part, that, "Where a test program is used to verify the adequacy of a specific design feature in lieu of other verifying or checking processes, it shall include suitable qualifications testing of a prototype unit under the most adverse design conditions. Design control measures shall be applied to items such as the following: reactor physics, stress, thermal, hydraulic, and accident analyses; compatibility of materials; accessibility for in-service inspection, maintenance, and repair; and delineation of acceptance criteria for inspections and tests."

   ATC's Generic Procedure - GP0060 "Qualification by Similarity Analysis Procedure," Revision 3, dated August 20, 2007, states in part that critical characteristics for comparison include materials of construction.

   Contrary to the above, as of August 23rd 2013, ATC failed to apply appropriate design control measures to a material change when qualifying replicated Eberline IB4 interface boxes for harsh environment in accordance with Institute of Electrical and Electronics Engineers Standards 323-1974. Specifically, ATC used qualification by similarity analysis by comparing Qualification Report 2176, Eberline Instrument Company Nuclear Safety Related Radiation Monitoring Equipment Qualification Report, dated November 30, 1981, to the replicated boxes assembled by ATC. However, ATC failed to analyze if material changes made to the base and enclosure invalidate the qualification for the device by making it more susceptible to harsh environmental characteristics, therefore deteriorating its performance.

Please provide a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Chief, Electrical Vendor Inspection Branch, Division of Construction Inspection and Operational Programs, Office of New Reactors, within 30 days of the date of the letter transmitting this Notice of Nonconformance. This reply should be clearly marked as a "Reply to a Notice of Nonconformance" and should include for each noncompliance: (1) the reason for the noncompliance, or if contested, the basis for disputing the noncompliance; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken to avoid noncompliance; and (4) the date when your corrective action will be completed. Where good cause is shown, the NRC will consider extending the response time.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's 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, it should not include any personal privacy, proprietary, or Safeguards Information so that it can be made available to the

public without redaction. 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 be withheld, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (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."

Dated this the 7th day of October, 2013

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

Docket No.:	99901429
Report No.:	99901429/2013-201
Vendor:	Argo Turboserve Corporation Nuclear - NY 588 Broadway Schenectady, NY 12305
Vendor Contact:	Tom Woelfersheim twoelfersheim@argoturbo.com 518-382-0056
Background:	Argo Turboserve Corporation Nuclear – NY, is a provider of safety-related components, qualification and commercial grade services for the US commercial nuclear fleet.
Inspection Dates:	August 19-23, 2013
Inspection Team Leader:	Douglas Bollock, NRO/DCIP/EVIB
Inspectors:	George Lipscomb, NRO/DCIP/EVIB Stacy Smith, NRO/DCIP/EVIB Jose Jimenez, NRO/DCIP/EVIB Annie Ramirez, NRO/DCIP/EVIB
Approved by:	Richard A. Rasmussen, Chief Electrical Vendor Inspection Branch Division of Construction Inspection and Operational Programs Office of New Reactors

EXECUTIVE SUMMARY

Argo Turboserve Corporation Nuclear - NY
99901429/2013-201

The U.S. Nuclear Regulatory Commission (NRC) conducted this vendor inspection to verify aspects of the implementation by Argo Turboserve Corporation Nuclear – NY (hereafter referred to as ATC), of its quality assurance program as required by 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 ATC's dedication and qualification of safety-related components for operating commercial nuclear plants in the US. The NRC inspection team reviewed the procurement, design, production, commercial grade dedication (CGD), and testing of the ATC's products, along with reviewing ATC's 10 CFR Part 21 program. The NRC conducted this inspection at ATC's facility in Schenectady, NY.

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, IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated April 25, 2011, 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 ATC appropriately translated the requirements of 10 CFR Part 21 into implementing procedures and, for those activities that the inspectors reviewed, implemented them as required by ATC procedures. No findings of significance were identified.

Design Control

The NRC inspection team issued Nonconformance 99901320/2013-201-01 in association with ATC's failure to implement the requirements of Criterion III, "Design Control," of Appendix B to 10 CFR Part 50. Specifically, ATC used similarity analysis to qualify replicated Eberline IB4 interface boxes for harsh environment in accordance with Institute of Electrical and Electronics Engineers Standard 323-1974; however, ATC failed to analyze if material changes made to the base and enclosure invalidate the qualification for the device by making it more susceptible to harsh environmental characteristics, therefore deteriorating its performance.

Procurement and Oversight of Suppliers

The inspectors determined that ATC'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. The NRC inspectors determined

that ATC is effectively implementing its procurement program in support of CGD of safety-related components. No findings of significance were identified.

Testing

The NRC inspectors determined that ATC'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.

Commercial Grade Dedication

The NRC inspection team determined that ATC has established a program that adequately controls CGD in accordance with the regulatory requirements of Criterion III, "Design Control," of Appendix B to 10 CFR Part 50 and 10 CFR Part 21. No findings of significance were identified.

Nonconformances and Corrective Actions

The inspectors determined that the implementation of ATC'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 ATC 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 ATC 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 ATC 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 Argo Turboserve Corporation Nuclear – NY (hereafter referred to as ATC) 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 ATC'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. Quality Assurance Plan (QAP) 19-001, "10 CFR Part 21 Reporting," and ATC Quality Assurance Manual Section 19 establish the requirements for ATC's compliance with the requirements in 10 CFR Part 21. The inspectors reviewed ATC's 10 CFR Part 21 policy and procedures and related documentation, interviewed the QA director and staff members of ATC, and reviewed a sample of completed 10 CFR Part 21 evaluations. The team inspected a sample of ATC's purchase orders (POs) for compliance with 10 CFR Part 21. The inspection team also verified that QAP-19-001 provides adequate guidance for the different timing requirements for 10 CFR Part 21 evaluations, notification, and reporting activities.

The inspectors reviewed two 10 CFR Part 21 evaluations, one involved failures of 48V DC power supplies, the second was the result of the failures of safety-related Moore 535 Single Loop process controllers.

b. Observations and Findings

No findings of significance in this area.

c. Conclusions

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

2. Design Control

a. Inspection Scope

The NRC inspectors reviewed ATC's policies and implementing procedures that govern the design control program to verify compliance with the regulatory requirements in Criterion III, "Design Control," of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

The NRC inspectors also reviewed a sample of procurement and system design specification documents, assembly drawings, bills of materials, and associated ATC's POs. In addition, the team reviewed ATC's test reports to verify that the vendor was maintaining adequate design control with respect to the results from the acceptance tests and environmental and seismic qualification. The NRC inspectors evaluated a

sample of design requirements related to both environmental and seismic equipment qualification requirements.

The NRC inspectors also discussed the design control program with ATC's management and technical staff. Specifically, NRC inspectors interview technicians and engineers responsible for the equipment qualification reverse engineering and testing.

b. Observations and Findings

The NRC inspectors reviewed the reverse engineering for an obsolete Eberline IB4 Interface Box. The Interface box is part of a radiation monitoring system that measures the intensity of radiation and activates an alarm relay when intensity reaches the pre-set value. The customer's PO requested an interface box (IB-4AHTCC) with a certificate of conformance stating the items conform to Institute of Electrical and Electronics Engineers (IEEE) 344-1975 and IEEE 323-1974 (harsh environment).

The NRC inspectors reviewed ATC's equivalency evaluation report, in addition to the CGD package and acceptance testing reports, to verify conformance with IEEE 323-1974 and 344-1975. ATC performed seismic and environmental (harsh) qualifications by similarity comparison. The analysis was performed by comparing Qualification Report 2176, Eberline Instrument Company Nuclear Safety Related Radiation Monitoring Equipment Qualification Report, dated November 30, 1981, to the reversed engineered boxes assembled by ATC. Generic Procedure (GP) 0060, "Qualification by Similarity Analysis Procedure," Rev 3, dated August 20, 2007, was used for qualification by analysis and states that the critical characteristics for comparison include materials of construction. The NRC inspection team was able to verify that the similarity by comparison was adequate for the electrical characteristics of the boxes. However, the NRC inspection team noted that material composition had changed for some components of the box, from cast aluminum to machined aluminum, without analysis to address how this design change may affect the environmental qualification. ATC opened CAR No. 13N-40 to evaluate the root and contributing causes and create additional actions as appropriate.

c. Conclusions

Based on this review, the NRC inspection team issued Nonconformance 99901320/2013-201-01 in association with ATC's failure to implement the requirements of Criterion III, "Design Control," of Appendix B to 10 CFR Part 50. Specifically, ATC used similarity analysis to qualify replicated Eberline IB4 interface boxes for harsh environment in accordance with IEEE 323-1974; however, ATC failed to analyze if material changes made to the base and enclosure invalidate the qualification for the device by making it more susceptible to harsh environment characteristics and deteriorating its performance.

3. Procurement and Oversight of Suppliers

a. Inspection Scope

The inspectors reviewed ATC's policies and procedures for procurement processes to verify compliance with Criterion IV and Criterion VII of Appendix B to 10 CFR Part 50. Specifically, the inspection evaluated ATC's procurement controls and procedures

established in ATC's Quality Program Manual (QPM), QAP-4-001, "Procurement Document control" and QAP-7-001, "Control of Purchase Material, Equipment, and Services" 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. In addition, the inspectors reviewed samples of POs that contained work scopes, contract services requirements, supplier quality assurance program descriptions, and methods ATC used to dedicate commercial items and services.

The inspectors reviewed ATC's approved vendor's list entries and commercial grade surveys performed for the selected commercial dedication packages in accordance with QAP-7-002, "Source Surveillance", QAP-7-001-1, "Supplier Evaluation Summary", and QAP-7-001-4, "Commercial Grade Dedication Survey Questionnaire". ATC's suppliers were reviewed to ensure that quality controls had been established and to verify that specific procurement requirements were met and documented correctly. The inspectors also performed a detailed review of five PO orders and five job orders.

b. Observations and Findings

No findings of significance in this area.

c. Conclusions

The inspectors determined that ATC'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. The NRC inspectors determined that ATC is effectively implementing its procurement program in support of commercial dedication of safety-related components

4. Commercial Grade Dedication

a. Inspection Scope

The NRC inspectors reviewed ATC's policy, procedures, and implementation of CGD for use in safety-related applications to determine if the established controls were in compliance with the regulatory requirements of Criterion III, "Design Control," of Appendix B to 10 CFR Part 50 and 10 CFR Part 21. This assessment included a review of the procedures governing the implementation of CGD activities, interviews with ATC personnel, and review of related documentation.

The NRC inspection team reviewed QAP-7-003, "Commercial Grade Dedication" which is a high-level document governing the CGD process that establishes the requirements and responsibilities for dedicating commercial grade items procured for use in safety-related applications. The NRC inspection team reviewed the technical evaluations and CGD plans for select components for use in the U.S. operating fleet. In addition, the inspectors reviewed a sample of inputs to the CGD plans, such as: 1) licensee POs, 2) engineering analysis of safety function, 3) development of critical characteristics, and 4) test or methods of acceptance.

In-Process Inspection and Testing

The NRC inspection team evaluated in-process AC/DC fuse testing for CGD plan JN13N1470, to determine adherence to GP0020, "Generic Test Procedure for Acceptance and Dedication of Fuses," which verifies specific critical characteristics of the CGD plan.

Siemens PAC 353 digital controller

The NRC inspection team selected CGD plan JN10N4690, as a complex CGD project and sampled specific portions for evaluation of ATC CGD processes. ATC applied QAP-7-003, "Commercial Grade Dedication," and QAP-3-002, "Computer Software Quality Assurance Procedure," to the applicable hardware and software aspects of the controller. The inspectors sampled various specifications, plans, and test procedures to verify use of customer approved versions.

b. Observations and Findings

No findings of significance in this area.

c. Conclusions

The NRC inspectors determined that ATC has established a program that adequately controls CGD in accordance with the regulatory requirements of Criterion III of Appendix B to 10 CFR Part 50 and 10 CFR Part 21.

5. Testing

a. Inspection Scope

The NRC inspectors reviewed ATC'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. Specifically, the NRC inspectors evaluated samples of equipment testing related to items provided to operating nuclear power plants.

The NRC inspectors observed and evaluated the testing for repair and refurbishment of two electronic speed switches (ESSB-2AT). ATC performed three tests: an as found condition, acceptance testing, and testing after a 24 hour burn-in. The testing was performed as part of the acceptance testing and dedication process. Specifically, the inspectors observed the as found testing of the switches, the physical replacement of the electrolytic capacitors, acceptance testing, and burn-in testing.

The NRC inspectors also reviewed testing associated with the functional test on the printed circuit boards associated with the temperature controller backplane assembly.

b. Observations and Findings

No findings of significance in this area.

c. Conclusions

The NRC inspectors concluded that ATC'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.

6. Measuring and Test Equipment

a. Inspection Scope

The NRC inspectors reviewed M&TE policies and procedures to determine if ATC's controls were in 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 verified the implementation of M&TE control through direct observation of inspection activities of ATC 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 as found testing and acceptance testing of the electronic speed switches. The inspectors confirmed that the instruments were calibrated and appropriate for the range of operation for each described activity.

The inspectors reviewed ATC's CGD plan for a sound level meter calibrated by Connecticut Calibration Labs in accordance with CGD procedure QAP-7-003-1. The dedication plan included equipment/parameter, range, calibration and measurement capability, and calibration laboratory accreditation documentation.

The inspectors reviewed the out of tolerance equipment, checking that they were appropriately dispositioned and extent of condition was performed to determine what jobs the equipment was used on and if/what effect it had on acceptance testing.

b. Observations and Findings

No findings of significance in this area.

b. Conclusions

The NRC inspectors concluded that ATC 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.

7. Nonconformances and Corrective Actions

a. Inspection Scope

The inspectors reviewed ATC'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. In addition, the inspectors conducted several interviews of ATC's management and technical staff about the

evaluation of nonconforming components and corrective actions. The inspectors also verified that ATC's nonconformance process provides guidance to evaluate nonconformances for reportability under ATC's 10 CFR Part 21 program.

The inspectors reviewed ATC documented conditions adverse to quality. In the cases where a root cause determination was necessary the inspectors verified that one was conducted using engineering justification and actions were taken to preclude repetition. The inspectors also reviewed the process for evaluating returns from customers. Samples of Return Merchandise Authorization (RMA) forms were inspected to assess the evaluation and corrective actions. The inspectors also verified the RMA forms triggered a 10 CFR Part 21 evaluation as necessary.

b. Observations and Findings

No findings of significance in this area were identified.

c. Conclusions

The inspectors determined that the implementation of ATC'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.

8. Internal Audits

a. Inspection Scope

The NRC inspection team reviewed audit policies and procedures to determine if ATC'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 ATC procedure QAP-18-001, "Audits," which describes the audit program and gives guidelines and a general overview of the performance of internal audits.

The inspectors evaluated multiple audits and verified each criterion was met on an annual basis for the past year. The inspectors verified the audits were successfully completed with all discrepancies noted and tracked, and with adequate documentation to justify the audit completion.

The inspectors evaluated all ATC lead auditor and auditor qualifications records, which also included the audits performed annually by each auditor to maintain qualification. Audit records were also evaluated for previous employees who led audits over the previous 3 years.

b. Observations and Findings

No findings of significance in this area were identified.

c. Conclusions

The NRC inspection team determined that ATC 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 ATC is effectively implementing its internal audit program.

9. Entrance and Exit Meetings

On August 19, 2013, the NRC inspection team presented the inspection scope during an entrance meeting with Mr. Greg Hott, President of ATC Nuclear, and other ATC personnel. On August 23, 2013, the inspectors presented the inspection results during an exit meeting with Mr. Hott and other ATC personnel.

ATTACHMENT

1. PERSONS CONTACTED AND NRC STAFF INVOLVED:

Name	Title	Affiliation	Entrance	Exit	Interviewed
Greg Hott	President	ATC	X	X	
Tom Woelfersheim	Quality Assurance Manager	ATC	X	X	X
Ray Chalifoux	Vice President, Quality Assurance	ATC	X	X	
Matthew Bowman	Vice President, Operations	ATC	X	X	
Robert Francis	Vice President, Engineering Programs	ATC	X	X	
David Cook	Supervisor, Inspections and Tests	ATC	X	X	
Richard Kaylor	Vice President of Business Development	ATC	X	X	X
Milton Concepcion	Senior Electrical Engineer	ATC	X	X	X
Richard Marchetti	Qualification Engineer	ATC		X	X
Cameron Horan	Qualification Engineer	ATC		X	X
Brenan Kelley	Level 2 Technician	ATC		X	X
Bruce Sell	Technician Level III	ATC		X	X
John Cestra	I&C Technical Product Manager	ATC		X	X
Vince Doolittle	Quality Engineer	ATC	X	X	X
Rick Bird	Quality Engineer	ATC	X	X	
Brendan Kelly	Engineer	ATC		X	
Douglas Bollock	Inspection Team Leader	NRC	X	X	
George Lipscomb	Inspection Team Member	NRC	X	X	
Stacy Smith	Inspection Team Member	NRC	X	X	
Jose Jimenez	Inspection Team Member	NRC	X	X	
Annie Ramirez	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:

Item Number	Status	Type	Description
99901429/2013-201-01	Opened	NOV	Criterion III

4. DOCUMENTS REVIEWED:

ATC Procedures
"Quality Program Manual," Revision 0, July 9, 2010

Quality Assurance Procedure (QAP)-13-002, "Receipt Inspection and Repair Guidelines for Refurbishments of Electrical and electronic components," Revision 2, September 2006

QAP-10-006, "Insulation Resistance Testing," revision 2, May 2012

QAP-10-005, "Detailed Visual Inspection and Establishing Physical Homogeneity," Revision 5, June 2012

QAP-7-003, "Commercial Grade Dedication," Revision 5, December 9, 2011

QAP -7-001, "Control of Purchase Material, Equipment, and Services," Revision 9, August 2013

QAP-7-001-4, "Commercial Grade Dedication Supplier Survey questionnaire"

QAP-7-001-1, "Supplier Evaluation Summary"

QAP-7-002, "Source Surveillance," Revision 4, dated December 1, 2011

QAP-9-001, "Soldering Process," Revision 4, dated June 4, 2012

QAP-3-003, "Workmanship Standards," Revision 3, dated September 23, 2011

QAP-4-001, "Procurement Document Control," Revision 3, July 2011

QAP-3-001, "Design Control," Revision 6, dated August 8, 2013

QAP-3-005, "Electronic Refurbishment, Troubleshooting, and Repair," Revision 1, June 2012

QAP-3-002, “Computer Software Quality Assurance Procedure,” Revision 4, August 24, 2012

QAP-2-002, “Certificates of Conformance and Authorization to Ship,” Revision 7, July 2013

QAP-16-001, “Corrective Action,” Revision 5, June 8, 2010

QAP-15-001, “Control of Nonconforming Material,” Revision 8, June 26, 2013

QAP-15-002, “Control of Inhouse Qualification Test Program Anomalies,” Revision 1, September 14, 2005

QAP-15-003, “Material Returns,” Revision 2, June 3, 2012

QAP-18-001, “Audits,” Revision 12, June 26, 2013

QAP-18-002, “Qualification of Auditors and Lead Auditors,” Revision 3, October 30, 2012

QAP-19-001, “10 CFR Part 21 Reporting,” Revision 9, August 2, 2013

GP0060, “Qualification by Similarity Analysis Procedure,” Revision 3, dated August 20, 2007

GP0070 “Thermal Aging Procedures,” Revision 2, dated January 3, 2006

AP13N202/1, “For Acceptance Testing and Dedication of the Electronic Speed Switch,” dated August 14, 2013

ATC Nonconformance Reports and Corrective Actions
NCR No. 11N7500-1, February 20, 2013
NCR No. 11N7660-A, April 4, 2013
NCR No. 11N10580, April 3, 2013
NCR No. 12N1690-10, April 29, 2013
NCR No. 12N3305-4, January 1, 2013
NCR No. 12N3640-1, January 24, 2013
NCR No. 124840-2, April 1, 2013
NCR No. 12N4885-2, May 28, 2013
NCR No. 13N0345-1, March 26, 2013
NCR No. 13N0665-1, May 15, 2013
NCR No. 13N0715/1, May 7, 2013
NCR No. 13N0760-2, July 10, 2013
NCR No. 13N0875-4, July 12, 2013
NCR No. 13N0885-01, May 17, 2013
NCR No. 13N1345-11, June 10, 2013
NCR No. 13N1495-1, May 17, 2013
NCR No. 13N1655-1, July 12, 2013
NCR No. 13N1780-4, July 29, 2013
CAR No. 13N-41, August 22, 2013
CAR No. 13N-39, August 21, 2013

CAR No. 11N-11, March 6, 2011
CAR No. 11N-15, March 14, 2011
CAR No. 11N-25, June 27, 2011
CAR No. 11N-43, August 2, 2011
CAR No. 12N-14, April 4, 2012
CAR No. 12N-17, May 31, 2012
CAR No. 12N-54, December 31, 2012
CAR No. 13N-03, March 4, 2013
CAR No. 13N-34, June 27, 2013

Audits
Internal Audit No. 2010-IA-001, conducted by Axion Technical Services Co., November 16-18, 2010

Internal Audit No. 2011-IA-001S, conducted by Axion Technical Services Co., July 18-20,

Internal Audit No. 2012-IA-001S, August 20-24, 2012

Lead Auditor Qualifications for David T. Homard, November 9, 2009, initial qualification April 1, 1992

Lead Auditor Qualification for John M. Salasky, January 20, 2013, initial qualification December 8, 1978

Lead Auditor Qualification for Kevin Morrow, December 19, 2011

Lead Auditor Qualification for Richard Bird, May 3, 2010

Lead Auditor Qualification for Raymond Chalifoux, December 19, 2011

Commercial Grade Dedication Procedures and Documents
CGD13N1470-01-01, "Commercial Grade Dedication Plan Job# 13N1470 Line 1 – Class RK1 Fast Acting Fuse," Revision 0, July 3, 2013

CGD10N4690-04-01, "Commercial Grade Dedication Plan Job# 10N4690 Line 4 – EDG Jacket Coolant Water Temperature Control," Revision 4, July 2, 2012

CGD10N4690-05-01, "Commercial Grade Dedication Plan Job# 10N4690 Line 5 – EDG Air Cooler Temperature Control," Revision 4, July 2, 2012

SQAP 11N1470-01-01, "Computer Software QA Plan for Siemens Energy & Automation Process Automation Controller PAC 353 Level B Firmware," Revision 0, August 20, 2013

SQAP 10N4690-00-01, "Computer Software QA Plan for Seabrook EDG Water Jacket and Air Cooler Temperature Control Configurations, Siemens Energy & Automation Process Automation Controller PAC 353 Level B," Revision 0, August 20, 2013

Acceptance Test Procedure (AP)11N1470-3, “Siemens Energy & Automation Process Automation Controller (PAC) 353 Design Level B, Factory Firmware Validation,” August 17, 2012

General Procedure (GP)0026, “Acceptance Testing and Dedication of Terminal Blocks,” Revision 3

GP0020, “Generic Test Procedure for Acceptance and Dedication of Fuses,” Revision 3, January 16, 2007

JN-13N1470, Mersen A2K10R Fuses, August 20, 2013 (in-process)

Procurement Documents
PO 02259187, Siemens Model PAC353 Digital Controller, for NextEra Energy Seabrook, Revision 15, September 25, 2012

PO 10382879, Class RK1 Fast Acting Fuse, for Entergy, Revision 1, May 10, 2013

PO 440885, Repair Switches, for Constellation Energy (JN13N2020), Revision 1, dated August 19, 2013

PO 10327353, Replacement circuit board for SRM/IRM board, for Entergy (JN12N0175), Revision 2, dated July 12, 2012

PO 00495717, Interface Box, for Exelon/Clinton, (JN12N37650), Revision 1, dated December 6, 2012

PO 00047971

PO 4500077447

PO 4000122648

PO 00047210

PO 10384067

Measuring and Test Equipment Documents
Sound Level Meter, S/N 130100054, calibrated by Connecticut Calibration Labs, calibrated May 10, 2013

Digital Multimeter (Fluke), S/N 15730327, calibrated by UpState Metrology Inc., calibrated May 3, 2013

Digital Multimeter (Fluke), S/N 1950140, calibrated by UpState Metrology Inc., calibrated May 6, 2013

Digital Multimeter (Fluke), S/N 22390237, calibrated by UpState Metrology Inc., calibrated May 2, 2013

Digital Multimeter (Fluke), S/N 22390232, calibrated by UpState Metrology Inc., calibrated May 2, 2013

Digital Scale, S/N 122582, calibrated by UpState Metrology Inc., calibrated June 25, 2013

Digital Caliper, S/N 08/480008-1, calibrated by UpState Metrology Inc., calibrated May 1, 2013

Miscellaneous Documents

Mersen Fuse Specification Sheet, "A2K-R & A6K-R Fast Acting/Class RK1," (undated)

Memo to File – Job 13N1470, Revision 0, August 22, 2013

AP09P3240/1, "Eberline Interface Box #1B-4HTCC/ST," Revision 2, dated January 25, 2010.

EER11N2480/1, "Equivalency Evaluation Report for the Replicated Eberline 1B4 Interface Box, P/N: IB-4AHTCC/ATC, per EPRI NP-6406," Revision 1, dated October 14, 2011.

13N-38, "13N2020," dated August 20, 2013

Notice Number 13-04, "Gage/Instrument Out of Specification Notice," dated May 10, 2013

Notice Number 13-02, "Gage/Instrument Out of Specification Notice," dated May 10, 2012

Qualification Report 2176, Eberline Instrument Company Nuclear Safety Related Radiation Monitoring Equipment Qualification Report, November 30, 1981

ASTM E140-07 / X.9 Hardness conversion equations for wrought aluminum products / X9.1.3

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 Equipment for Nuclear Power Generating Station," 1975

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Part 21 evaluation for Siemens Model 353 Process Controller, report September 9, 2008

ATC NY CAR Open Items Log, August 22, 2013

ATC QA Program Indoctrination Training, September 17, 2012

Constellation Energy Nuclear Group specification PES-51360, “Procurement Engineering Specification,” Revision 7, dated June 16, 2010

5. ACRONYMS USED:

ADAMS	Agencywide Documents Access and Management System
ATC	Argo Turboserve Corporation Nuclear - NY
CGD	commercial grade dedication
CFR	*Code of Federal Regulations*
CGD	commercial grade dedication
DCIP	Division of Construction Inspection and Operational Programs
EDG	emergency diesel generator
EVIB	Electrical Vendor Inspection Branch
IP	inspection procedure
JN	job number
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
QAP	quality assurance plan
SQAP	software quality assurance plan
UL	Underwriters Lab
U.S.	United States (of America)