UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 11, 2019

Mr. James Halsey
Quality Assurance Director
Applied Testing Services, Inc.
1049 Triad Court
Marietta, GA 30062

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF APPLIED TESTING SERVICES, INC., NO. 99902066/2018-201

Dear Mr. Halsey:

On December 3-6, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at Applied Testing Services, Inc.'s (hereafter referred to as ATS) facilities in Marietta, GA. The purpose of this limited-scope routine inspection was to assess ATS's compliance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and selected portions 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."

This technically-focused inspection specifically evaluated ATS's implementation of the quality activities associated with testing and calibration services provided for safety-related materials and equipment in support of operating nuclear power plants. The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC endorsement of ATS's overall quality assurance (QA) or 10 CFR Part 21 programs.

Based on the results of this inspection, the NRC inspection team found the implementation of your QA program met the requirements imposed on you by your customers or NRC licensees. No findings of significance were identified.

In accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," the NRC will make available electronically for public

inspection a copy of this letter and its enclosure through the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System, which is accessible at http://www.nrc.gov/reading-rm/adams.html.

Sincerely,

/RA/

Kerri A. Kavanagh, Chief
Quality Assurance Vendor Inspection Branches 1 and 2
Division of Construction Inspection
and Operational Programs
Office of New Reactors

Docket No.: 99902066

EPID No.: I-2018-201-0054

Enclosure:
Inspection Report No. 99902066/2018-201
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF APPLIED TESTING SERVICES, INC. NO. 99902066/2018-201
Dated: January 11, 2019

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DATE	01/09/19	01/09/19	01/09/19	01/11/19

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

Docket No.:	99902066
Report No.:	99902066/2018-201
Vendor:	Applied Testing Services, Inc. 1049 Triad Court Marietta, GA 30062
Vendor Contact:	Mr. James Halsey, Quality Assurance Director Email: jhalsey@atslab.com Phone: (770) 423-1400
Nuclear Industry Activity:	Applied Testing Services, Inc. provides testing and calibration services for safety-related materials and components in support of nuclear power plant operations.
Inspection Dates:	December 3-7, 2018
Inspectors:	Jeffrey Jacobson NRO/DCIP/QVIB-1 Team Leader Yamir Diaz-Castillo NRO/DCIP/QVIB-1 Raju B. Patel NRO/DCIP/QVIB-2
Approved by:	Kerri A. Kavanagh, Chief Quality Assurance Vendor Inspection Branches 1 and 2 Division of Construction Inspection and Operational Programs Office of New Reactors

Enclosure

EXECUTIVE SUMMARY

Applied Testing Services, Inc.
99902066/2018-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a vendor inspection at the Applied Testing Services, Inc.'s., (hereafter referred to as ATS's) facility located in Marietta, GA, to verify that it had 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 was the first NRC vendor inspection at ATS.

10 CFR Part 21

The NRC inspection team reviewed ATS's policies and implementing procedures that govern the implementation of its 10 CFR Part 21 program and determined that there is no specific guidance in ATS's procedures as to what types of issues would constitute an issue that would fall into the category of 10 CFR Part 21 noncompliances, or at what point in the corrective action process an identified issue becomes a deviation subject to 10 CFR Part 21 time requirements for evaluation and reportability. While the NRC inspection team did not identify any items in the corrective action program that would have clearly required an evaluation under 10 CFR Part 21, the lack of guidance in this area was considered a minor issue by the NRC inspection team. ATS issued corrective action report No. (CAR) 2018-1408, dated December 4, 2018, to address this issue. No findings of significance were identified.

Oversight of Suppliers and Commercial-Grade Dedication

The NRC inspection team reviewed ATS's policies and implementing procedures that govern the implementation of its supplier oversight and commercial-grade dedication programs to determine compliance with the requirements of Criterion IV, "Procurement Document Control," and Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50. The NRC inspection team identified that ATS does not pass down the requirements of Appendix B to 10 CFR Part 50 or 10 CFR Part 21 to any of their sub-suppliers (which are primarily calibration service providers). As such, any service provided by a sub-supplier that will ultimately be used by ATS to support a safety-related application would have to be dedicated. The NRC inspection team identified one instance where the guidance in ATS Quality Assurance Procedure (QAP) 6.5, "Commercial-Grade Dedication Process and Plan for Domestic Calibration and Testing Services," Revision 7, was not being followed and where ATS was apparently procuring some services from sub-suppliers without implementing its commercial-grade dedication process. Since it was determined that this supplier maintained a QA program that met the applicable requirements of Appendix B to 10 CFR Part 50, the NRC inspection team considered this to be a minor issue. ATS initiated CAR No. 2018-1409, dated December 6, 2018, to address this issue. No findings of significance were identified.

Control of Special Processes

The NRC inspection team reviewed ATS's policies, implementing procedures, and completed reports associated with visual testing of welds, fluorescent magnetic particle testing, eddy current testing, ultrasonic testing and liquid penetrant testing and determined they met the requirements of Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50

as well as Section V, “Nondestructive Examination,” of the American Society of Mechanical Engineers (ASME) Boilers and Pressure Vessel (B&PV) Code. The NRC inspection team reviewed ATS’s written practice for the certification and qualification of non-destructive examination (NDE) personnel and confirmed they were consistent with the latest revision of the American Society for Nondestructive Testing (ASNT) Recommended Practice SNT-TC-1A, “Personnel Qualification and Certification in Nondestructive Testing,” and Section III, “Rules for Construction of Nuclear Facilities,” of the ASME B&PV Code. No findings of significance were identified.

Test Control

The NRC inspection team reviewed ATS’s policies and implementing procedures that govern the implementation of its testing activities to determine compliance with the regulatory requirements in Criterion XI, “Test Control,” of Appendix B to 10 CFR Part 50. The NRC inspection team reviewed a sample of job orders and laboratory procedures which showed that applicable customer specifications were translated correctly into job orders, procedures or instructions. No findings of significance were identified.

Control of Measuring and Test Equipment (Including Validation of Associated Software)

The NRC inspection team reviewed ATS’s policies and implementing procedures that govern the implementation of its measuring and test equipment (M&TE) program to determine compliance with the requirements of Criterion XII, “Control of Measuring and Test Equipment,” of Appendix B to 10 CFR Part 50. The NRC inspection team observed that the M&TE had the appropriate calibration stickers and current calibration dates, including the calibration due date.

The NRC inspection team also reviewed the methods used by ATS to determine calibration uncertainties for the processes being used at ATS to calibrate customer equipment and whether the uncertainty analyses appropriately considered error terms associated with the calibration standards themselves, as well as error terms associated with the specific calibration process and method being utilized. The NRC inspection team reviewed ATS’s control and application of calibration software which ATS utilizes to calculate uncertainties and assessed whether such software had been properly validated and controlled for its application. This included both internally generated software and/or spreadsheets utilized to calculate the total uncertainty of the measurement standards themselves, as well as purchased software used to assess the total uncertainty of the calibration process and to develop data sheets. No findings of significance were identified.

Corrective Action

The NRC inspection team reviewed ATS’s policies and implementing procedures that govern the implementation of its corrective action program to determine compliance with the requirements of Criterion XVI, “Corrective Action,” of Appendix B to 10 CFR Part 50. The NRC inspection team also reviewed a sample of items entered into the ATS corrective action program during calendar year 2018. No findings of significance were identified.

REPORT DETAILS

1. 10 CFR Part 21 Program

   a. Inspection Scope

   The NRC inspection team reviewed ATS's policies and implementing procedures that govern the implementation of its 10 CFR Part 21, "Reporting of Defects and Noncompliance," program to determine compliance with the regulatory requirements. In addition, the NRC inspection team examined the 10 CFR Part 21 postings. Since ATS does not procure anything as safety-related, the NRC inspection team did not assess ATS's pass down of 10 CFR Part 21 requirements to sub-suppliers. The NRC inspection team evaluated whether ATS's corrective action and 10 CFR Part 21 programs were sufficiently integrated such that issues identified in the corrective action program would be appropriately considered for 10 CFR Part 21 evaluations and reportability.

   The NRC inspection team reviewed ATS's procedure to perform 10 CFR Part 21 evaluations and determined that it addresses the requirements for evaluating deviations and failures to comply. The NRC inspection team reviewed only the procedures because at the time of the inspection ATS had not performed any evaluations under 10 CFR Part 21.

   The NRC inspection team also discussed the 10 CFR Part 21 program with ATS's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

   b. Observations and Findings

   The NRC inspection team identified one minor issue concerning the integration between ATS procedures 14.2, "Corrective Action," Revision 10; 13.1, "Nonconforming Product Review and Disposition," Revision 12; and 13.2, "Reporting of Defects and Noncompliances per 10 CFR Part 21 and 10 CFR Part 50," Revision 11. Specifically, the NRC inspection team identified that although procedure 14.2 has a note in the procedure regarding the need to check the 10 CFR Part 21 box on the corrective action form for "10 CFR 21 Noncompliances," there is no specific guidance in the procedure as to what types of issues would constitute an issue that would fall into the category of 10 CFR Part 21 noncompliances, or at what point in the corrective action process an identified issue becomes a deviation subject to 10 CFR Part 21 time requirements for evaluation and reportability. Upon questioning, ATS staff indicated that as far as they could remember, no corrective action issue was ever determined to be potentially reportable under 10 CFR Part 21 and no 10 CFR Part 21 evaluations or notifications have been made by ATS.

   While the NRC inspection team did not identify any items in the corrective action program that would have clearly required an evaluation under 10 CFR Part 21, the lack of guidance in this area was considered a minor issue by the NRC inspection team. ATS issued corrective action report CAR No. 2018-1408, dated December 4, 2018, to address this issue. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that ATS is implementing its 10 CFR Part 21 program in accordance with the regulatory requirements of 10 CFR Part 21.

2. Oversight of Suppliers and Commercial-Grade Dedication

a. Inspection Scope

The NRC inspection team reviewed ATS's policies and implementing procedures that govern the implementation of its supplier oversight and commercial-grade dedication programs to determine compliance with the requirements of Criterion IV, "Procurement Document Control," and Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50.

The NRC inspection team reviewed a sample of purchase orders (POs) to determine that the POs included, as appropriate, the applicable technical and quality requirements. In addition, the NRC inspection team reviewed a sample of receipt inspection records (e.g., Certificates of Calibration), to determine whether those records (1) had been reviewed by ATS for compliance with the requirements of the POs, and (2) the records contained the applicable technical and regulatory information.

The NRC inspection team noted that ATS is a member of the Nuclear Industry Assessment Committee (NIAC), which consists of companies who supply components and services to the nuclear industry based on a quality assurance (QA) program that meets the requirements of Appendix B to 10 CFR Part 50 and accept 10 CFR Part 21. Since ATS doesn't procure components or services as safety-related, ATS uses NIAC's commercial-grade surveys to support the qualification and maintenance of suppliers. The NRC inspection team confirmed that once a NIAC commercial-grade survey is received, ATS's QA Director reviews them for completeness and adequacy, evaluates the commercial-grade survey in accordance with ATS's QA program and the appropriateness of the scope, and approves the commercial-grade survey as the basis for including the vendor on ATS's Approved Suppliers List as a provider of commercial services.

The NRC inspection team noted that ATS's commercial-grade dedication activities are limited to performing on-site commercial-grade surveys or qualifying commercial calibration service suppliers in accordance with the requirements of International Standard Organization (ISO)/International Electrotechnical Commission (IEC) 17025, "General Requirements for the Competence of Testing and Calibration Laboratories." For the sample of commercial-grade surveys performed by ATS or NIAC, the NRC inspection team confirmed that the appropriate critical characteristics for calibration and testing services were adequately verified.

The NRC inspection team also discussed the supplier oversight program with ATS's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

b. Observations and Findings

The NRC inspection team identified that ATS does not pass down the requirements of Appendix B, 10 CFR Part 50 or 10 CFR Part 21 to any of their sub-suppliers (which are primarily calibration service providers). As such, any service provided by a sub-supplier that will ultimately be used by ATS to support a safety-related application would have to be dedicated in accordance with ATS's Quality Assurance Procedure (QAP) No. 6.5, "Commercial-Grade Dedication Process and Plan for Domestic Calibration and Testing Services," Revision 7. Such a dedication could be performed in one of two ways: 1) performing a commercial-grade survey of the service provider (or taking credit for a third party survey), or 2) following the guidance in Nuclear Energy Institute (NEI) document No. 14-05A, "Guidelines for the Use of Accreditation in Lieu of Commercial-Grade Surveys for Procurement of Laboratory Calibration and Test Services," Revision 1. This NEI guidance has been determined to be acceptable for use by the NRC in a safety evaluation report dated February 9, 2015 (Agencywide Documents Access Management System Accession No. ML14322A535).

In one instance, the NRC inspection team identified that the guidance in QAP 6.5 was not being followed and that ATS was apparently procuring some services from a sub-supplier without performing the commercial-grade dedication process. Specifically, the NRC inspection team identified one example where ATS procured a calibration service from a supplier but failed to complete the dedication process. In this case, it appeared from the PO that ATS's intent was to dedicate the sub-supplier's service based upon the supplier's QA program certification to ISO/IEC 17025. This supplier did not, however, have a program that had been accredited to ISO/IEC 17025, but instead, ATS was dedicating the supplier based upon a NIAC audit that had been performed to the requirements of Appendix B to 10 CFR Part 50.

Since this supplier maintained a program that met the applicable requirements of Appendix B to 10 CFR Part 50 and had been audited by NIAC, ATS could have just invoked the applicable QA program in their PO to the supplier along with the appropriate Appendix B to 10 CFR Part 50 and 10 CFR Part 21 requirements. Had this been done, a commercial-grade dedication would not have been required. Since these requirements were not included in the PO, the PO is considered a commercial PO which would then require commercial-grade dedication.

While ATS did not follow their own procedures for dedicating the service in question, the NRC inspection team considered this to be a minor issue because the supplier had been previously audited and qualified by NIAC as a safety-related supplier having a QA program that meets the applicable requirements of Appendix B to 10 CFR Part 50. ATS initiated CAR No. 2018-1409, Revision 0, dated December 6, 2018, to address this issue. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that ATS is implementing its supplier oversight and commercial-grade dedication programs in accordance with the regulatory requirements of Criterion IV and Criterion VII of Appendix B to 10 CFR Part 50.

3. Control of Special Processes

a. Inspection Scope

The NRC inspection team reviewed ATS's policies and implementing procedures that govern the control of special processes to determine compliance with the regulatory requirements of Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50, Section V, "Nondestructive Examination," of the ASME B&PV Code, and the American Society for Nondestructive Testing (ASNT) Recommended Practice SNT-TC-1A, "Personnel Qualification and Certification in Nondestructive Testing."

Although the NRC inspection team was not able to observe any nondestructive examination (NDE) activities during the week of the inspection, the NRC inspection team reviewed the procedures associated with Visual Testing (VT) of welds, fluorescent magnetic particle (MP), Eddy Current (EC), Ultrasonic Testing (UT) and Liquid Penetrant (LP) and determined they meet the requirements of Section V of the ASME B&PV Code. The NRC inspection team selected a sample of completed VT, EC, and fluorescent MP reports for safety-related components and verified the examinations had been performed by qualified personnel and procedures in accordance with the requirements of Section III and Section V of the ASME B&PV Code and ASNT
SNT-TC-1A using calibrated equipment.

The NRC inspection team reviewed ATS's written practice for the certification and qualification of NDE personnel and confirmed they were consistent with the latest revision of the ASNT Recommended Practice SNT-TC-1A and Section III of the ASME B&PV Code. The NRC inspection team reviewed training and qualification records for three NDE Level II and three NDE Level III inspectors and confirmed that their records reflected that the individuals were trained and qualified in accordance with ATS's written practice. The NRC inspection team also verified that all NDE personnel annual vision acuity records were current. The NRC inspection verified that the NDE instrumentation used during the VT, MP and LP examinations were identified with a calibration sticker and verified its calibration record was current, within the range and frequency maintained. In addition, the NRC inspection team verified that the penetrant, developer and cleaner used were from the same manufacturer and that their material test reports specified the halogen contents below one percent by weight meeting the requirements of Section V of the ASME B&PV Code.

The NRC inspection team also discussed the control of special processes program with ATS's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

b. Observation and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that ATS is implementing its control of special processes program in accordance with the regulatory requirements of Criterion IX of Appendix B to 10 CFR Part 50.

4. Test Control

a. Inspection Scope

The NRC inspection team reviewed ATS's policies and implementing procedures that govern its testing activities to determine compliance with the regulatory requirements in Criterion XI, "Test Control," of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed a sample of job orders and laboratory procedures which showed that applicable customer specifications were translated correctly into job orders, procedures or instructions. The NRC inspection team observed the following activities: (1) Vicker hardness test performed on customer supplied sample to determine the material specification, (2) metallurgical analysis to verify the grain size to determine material meets the specified material specification, and (3) a wet chemical analysis test on a customer suppled sample of a spring tested on an optical spectrometer to verify the chemical properties to determine if the material meets the applicable material specification. The NRC inspection team observed that each of the tests were performed in accordance with an established test procedure to an applicable standard by a qualified personnel using calibrated equipment traceable to known national standards.

The NRC inspection team also discussed the test control program with ATS' management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that ATS is implementing its testing control program in accordance with the regulatory requirements of Criterion XI of Appendix B to 10 CFR Part 50.

5. Control of Measuring and Test Equipment (Including Validation of Associated Software)

a. Inspection Scope

The NRC inspection team reviewed ATS's policies and implementing procedures that govern the measuring and test equipment (M&TE) program to determine compliance with the requirements of Criterion XII, "Control of Measuring and Test Equipment," of Appendix B to 10 CFR Part 50.

For a sample of M&TE selected, the NRC inspection team observed that the M&TE had the appropriate calibration stickers and current calibration dates, including the calibration due date. The NRC inspection team also observed that the M&TE had been calibrated, adjusted, and maintained at prescribed intervals prior to use. In addition, the calibration records reviewed by the NRC inspection team indicated the as-found and as-left conditions, accuracy required, calibration results, calibration dates, and the due dates for recalibration. Furthermore, the NRC inspection team also verified that when M&TE equipment is found to be out of calibration, ATS generates an out-of-tolerance report and initiates an investigation to identify items that have been accepted using this equipment since the last valid calibration date and to perform an extent of condition review.

The NRC inspection team performed a walk-down of ATS's laboratories to observe that M&TE were labeled, handled, and stored in a manner that indicated the calibration status of the instrument and ensured its traceability to calibration test data. The NRC inspection team observed the calibration of a dynamometer and an outside micrometer and confirmed that the calibrations were performed in accordance with ATS's applicable procedures.

The NRC inspection team also reviewed the methods used by ATS to determine calibration uncertainties for the processes being used at ATS to calibrate customer equipment. The NRC inspection team assessed whether ATS's uncertainty analyses appropriately considered error terms associated with the calibration standards themselves, as well as error terms associated with the specific calibration process/method being utilized. The NRC inspection team reviewed ATS's control and application of calibration software which ATS utilizes to calculate uncertainties and assessed whether such software had been properly validated and controlled for its application. This included both internally generated software/spreadsheets utilized to calculate the total uncertainty of the measurement standards themselves, as well as purchased software used to assess the total uncertainty of the calibration process and to develop data sheets. The NRC inspection team assessed whether measurement uncertainty terms were clearly disclosed to ATS's customers on Certificates of Calibrations.

The NRC inspection team discussed the M&TE program with ATS's management and technical staff. The attachment to this inspection report lists the documents reviewed by the NRC inspection team.

b. Observations and Findings

For the limited sample reviewed, the NRC inspection team verified that ATS was (1) appropriately calculating calibration uncertainties and disclosing them to their customers, and (2) that software being utilized for safety-related purposes had been properly validated and was being controlled. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that ATS is implementing its M&TE program in accordance with the regulatory requirements of Criterion XII of Appendix B to 10 CFR Part 50.

6. Corrective Action

a. Inspection Scope

The NRC inspection team reviewed ATS' policies and implementing procedures that govern the corrective action program to determine compliance with the requirements of Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed a sample of items entered into the ATS corrective action program during calendar year 2018. Among the items entered into the ATS corrective program were customer complaints, internally generated audit findings, external audit findings, and non-conforming products (including those arising from out of tolerance notifications). For the CARs selected for review, the NRC inspection team assessed whether appropriate evaluations had been conducted, whether reasonable corrective actions were specified, and whether corrective actions taken for significant conditions adverse to quality were sufficient to prevent recurrence as required by Criterion XVI of Appendix B 10 CFR Part 50.

The NRC inspection team reviewed ATS's response to Out of Tolerance notifications received from their calibration service providers to ensure that appropriate investigations were conducted as necessary to evaluate the impact of the out of tolerance notifications on any calibrations performed by ATS and on data reported to ATS's customers. The NRC inspection team evaluated whether ATS had assessed the magnitude of each out of tolerance notification with respect to where the affected equipment was used and with respect to the customer requested accuracy requirements.

b. Observations and Findings

None of the Out of Tolerance Notifications reviewed resulted in the need for ATS notification to their customers, as in most cases the tolerance limits that were exceeded were still well within the range of acceptable tolerances for the calibration service being provided. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that ATS was implementing its corrective action program in accordance with Criterion XVI to 10 CFR Part 50.

7. Entrance and Exit Meetings

On December 3, 2018, the NRC inspection team discussed the scope of the inspection with Mr. James Halsey, QA Director, and other members of ATS' management and technical staff. On December 7, 2018, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. Halsey, and other members of ATS' management and technical staff. The attachment to this report lists the attendees of the entrance and exit meetings, as well as those individuals whom the NRC inspection team interviewed.

ATTACHMENT

1. Entrance/Exit Meeting Attendees and Persons Interviewed

Name	Title	Affiliation	Entrance	Exit	Interviewed
James Halsey	Quality Assurance (QA) Director	Applied Testing Services, Inc. (ATS)	X	X	X
Jeff Cook	Group Manager, Lab Services	ATS	X	X	X
Mark L. Elrod	Manager- Material Testing	ATS	X	X	
Aaron Roob	Non-Destructive Testing Quality Supervisor	ATS	X	X	X
Andy Waldron	Technical Development Supervisor	ATS	X	X	
Janet Vining	Quality Supervisor	ATS	X	X	X
Eric Smith	Sr. QA Technician	ATS	X	X	X
Jennifer M. Jones	Vendor Services Administrator	ATS			X
Lee A. Oxendine	Calibration Services Manager	ATS	X	X	X
Jeremy Brock	Sr. Calibration Technician	ATS			X
Eric Mansfield	Quality Assurance	ATS		X	
Adam Newman	Calibration Technician	ATS			X
Emily Teeter	Metallurgy Engineer	ATS			X
James Caverlee	Metallurgist	ATS			X

Kyle Banyas	Chemist	ATS			X
Justin Burmeister	Chemistry Operations Manager	ATS		X	
Jason Lane	Chemist	ATS			X
Tracy Williams	Shipping	ATS			X
Jeffrey Jacobson	Inspection Team Leader	NRC	X	X	
Raju Patel	Inspector	NRC	X	X	
Yamir Diaz-Castillo	Inspector	NRC	X	X	

2. INSPECTION PROCEDURES USED

- Inspection Procedure (IP) 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated February 13, 2012.
- IP 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017
- IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated January 27, 2017

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None.

4. DOCUMENTS REVIEWED

Policies and Procedures

- Applied Technical Services, Inc. (ATS) Quality Manual, Revision 16, dated October 1, 2018
- Quality Assurance Procedure (QAP) 5.6, "Control of Software and Electronic Media," Revision 8, dated October 13, 2016
- QAP 6.1, "Purchasing," Revision 20, dated January 26, 2018
- QAP 6.2, "Supplier/Subcontractor Selection and Approval," Revision 24, dated September 4, 2018
- QAP 6.3, "Evaluation of Suppliers," Revision 7, dated January 26, 2018

- QAP 6.5, “Commercial-Grade Dedication Process and Plan for Domestic Calibration and Testing Services,” Revision 7, October 19, 2018

- QAP 10.2, “Receiving Inspection,” Revision 19, dated April 17, 2018

- QAP 11.1, “Control of Inspection, Measuring, and Test Equipment,” Revision 14, dated May 26, 2016

- QAP 11.2, “Calibration of ATS Owned Equipment,” Revision 8, dated January 26, 2018

- QAP 11.4, “Establishment, Adjustment, and Extension of Calibration Intervals,” Revision 4, dated January 26, 2018

- QAP 13.1, “Nonconforming Product Review and Disposition,” Revision 12, dated February 13, 2018

- QAP 13.2, “Reporting of Defects and Noncompliances per 10CFR21 an 10CFR50,” Revision 11, dated January 26, 2018

- QAP 14.1, “Customer Complaints,” Revision 8, dated September 1, 2017

- QAP 14.2, “Corrective Action,” Revision 10, February 17, 2017

- QAP 17.1, “Quality Audits,” Revision 14, dated November 2, 2018

- QAP 18.1, “Training Needs and Qualification of Personnel,” Revision 16, dated November 13, 2018

- Procedure No. 110.4, “Qualification and Certification of Nondestructive Testing Personnel for Nuclear Construction,” Revision 11, dated February 9, 2018

- Procedure No. 110.8, “Qualification and Certification of Nondestructive Examination Personnel – Nuclear (ANSI/ANST CP-189-1995, SNT-TC-1A-1992, and SNT-TC-1A-2006),” Revision 8, dated February 26, 2018

- Procedure No. 110.9, “Qualification and Certification of Visual Examination Personnel (Nuclear),” Revision 5, dated October 24, 2015

- Procedure No. 110.20, Qualification and Certification of Inspection Personnel – Nuclear-ANSI N45.2.6, and ANSI/ASME NQA-1,” Revision 1, dated October 5, 2012

- Procedure No. 313, “Standard Operation Procedure for ICP Analysis,” Revision 4, dated May 2, 2007

- Procedure No. 507, “Certification of Outside Micrometers and Outside Micrometer Sets,” Revision 8, dated January 8, 2018

- Procedure No. 521, “Calibration of Force and Load Devices,” Revision 7, dated January 23, 2014

- Procedure No. 903, “Measurement of Vickers Hardness, Microhardness and Case Depth,” Revision 15, dated March 9, 2018

- Standard Operating Procedure No. OP-001, “Standard Operating Procedure for Calibration of Measuring and Test Equipment,” Revision 12, dated September 14, 2018

Purchase Orders

- Purchase Order (PO) No. 71529 for the calibration of a delay line probe, dated February 23, 2018

- PO No. 65979 for the calibration of an ASME calibration standard, dated April 24, 2017

- PO No. 75966 for the calibration of a light meter, dated September 27, 2018

- PO No. 72327 for the calibration of a gauss field meter, dated April 4, 2018

- PO No. 64808 for the calibration of radiometers, dated February 27, 2017

- PO No. 76482 for the calibration of a multi-function calibrator, dated October 18, 2018

- PO No. 76694 for the calibration of a standard resistor set, dated October 29, 2018

- PO No. 77048 for the calibration of a ultraviolet light meter, dated November 13, 2018

Certification/Test Reports/Calibration Records

- Certificate of Conformance from Southern California Edison for “Edison Mudcats Metrology Suite,” dated September 7, 2007

- Certificate of Conformance from Ray-Check Manufacturing Inc., for stainless steel IQI dated July 17, 2012

- NIST Certificate of Analysis Report dated December 20, 1991, for high purity iron standard reference material 2168

- Lab Data sheet for nuclear Job No. 305398, for Micro-Indentation Hardness performed to ASTM E-384-17 and ASTM E-92-17 performed and accepted by Metallurgy Engineer dated December 4, 2018

- Visual inspection report dated October 25, 2018, for Job No. T305042N, customer PO No. W256-1023, performed on 147 pieces of ASTM A500 Grade B tube steel accepted by Level II

- Visual inspection report dated October 18, 2018, for Job No. T303270N, customer PO No. W256-916, performed on 12 pieces of ASTM A500 Grade B tube steel accepted by Level II

- Weld report dated March 5, 2018, for Job No. D288608-I (N) for customer PO 197368-S064, Part Identification No. CT-V, a ½-inch carbon steel with fillet weld and part Id No. CT-OH, a ½-inch carbon steel with fillet weld were tested to American Welding Society (AWS) D1.1:2015, result not meeting AWS specification

- Weld report dated October 12, 2018, for Job No. D302623-1(N) for customer PO 134503, Part Identification No. 1D and 2D, a 0.300 to 0.800-inch copper with brazed lap joint samples tested to ASME Section IX, 2017 Edition, result were accepted by Material technician for not meeting AWS specification

- Metallurgical test report dated October 12, 2018, for Job No. D302823-N for customer PO No. 0052286-01, part ID No. 33D11E8, a bonnet cast iron head, analyzed to determine material meets ASME SA-395 or SA-278 specification

- Metallurgical test report dated December 4, 2018, for Job No. CD305582N, on customer PO No. 17593, part ID No. IC2362-01, tested for grain size analysis

- Final Inspection package for ATS Job No. 296970, Phase IT, dated August 17, 2018

- Final inspection package for ATS Job No. T287900, dated February 19, 2018

- Receiving Inspection Checklist for equipment No. ATS-04156, dated November 19, 2018

- Receiving Inspection Checklist for equipment No. ATS-05282, dated November 8, 2018

- Receiving Inspection Checklist for equipment No. ATS-05682, dated November 6, 2018

- Certificate of Calibration for strucurix certified denstrip x-ray film step tablet S/N 7903211 calibration July 2017, first use January 22, 2018, due January 22, 2019, traceable to NIST

- Certificate of Calibration for a hardness test block, serial No. 65KI, calibration date September 24, 2010

- Certificate of Calibration for a hardness test block, serial No. 4KK, calibration date October 25, 2010

- Certificate of Calibration No. 2439632 for a force verification testing machine, calibration date November 2, 2018

- Certificate of Calibration No. 24544327 for a white light meter, calibration date November 29, 2018

- Certificate of Calibration No. 2454917 for a thermocouple thermometer, calibration date November 29, 2018

- Certificate of Calibration No. 245919 for an infrared thermometer, calibration date November 29, 2018

- Certificate of Calibration No. 2418395 for an standard resistor set, calibration date November 2, 2018

- Certificate of Calibration No. 2441752 for an ultraviolet light meter, date of calibration November 15, 2018

- Certificate of Calibration No. 2405529 for a multi-function calibrator, calibration date November 1, 2018

- Certificate of Calibration No. 2397041 for a load cell with display, calibration date October 17, 2018

- Certificate of Calibration No. 2455268 for a dynamometer, calibration date December 4, 2018

- Certificate of Calibration No. 2454920 for a micrometer, calibration date December 4, 2018

- Certificate of Calibration No. 2341409 for a heavy duty gage block set, calibration date June 27, 2018

- Certificate of Calibration No. 2395383 for a radiometer set, calibration date September 19, 2018

- Certificate of Calibration No. 2351526 for a glass thermometer, calibration date July 17, 2018

- Certificate of Calibration No. 2382213 for a pressure gage, calibration date September 6, 2018

- Certificate of Calibration No. 2440887 for a temperature controller, calibration date November 13, 2018

- Certificate of Calibration No. 2355969 for a digital gauss meter, calibration date July 30, 2018

- Certificate of Calibration No. 2347784 for a magnetic particle machine, calibration date July 2, 2018

Commercial-Grade Surveys/Audit Reports

- Commercial-Grade Survey (CGS) Report No. 2016-60, dated December 26, 2016

- CGS Report No. 22100, dated February 23, 2017

- CGS Report No. 2016-16, dated November 16, 2016

- Audit report No. 22207, dated January 28, 2018

- Nuclear Industry Assessment Corporation Audit of Eastern NDT, Inc., dated January 29, 2018

Training Records

- Certification record ATS 929, “Material Testing Department Metallurgy Proficiency Checklist,” for Metallurgist certified date September 18, 2018

- Certification record for NDE Level II inspector qualified in Liquid Penetrant (LP) in Type methods A, C, D/ Type II, Method C, certified by Level III on May 15, 2018, due May 1, 2021, with current visual acuity examination

- Certification record for NDE Level II inspector qualified in Ultrasonic Testing in straight beam and angle beam shear, certified by Level III on July 6, 2016 due July 1, 2019, with current visual acuity examination

- Certification record for NDE Level II inspector qualified in Magnetic Particle (MP) Longitudinal, Circular and Yoke method, certified by Level III on October 7, 2016 due July 11, 2019, with current visual acuity examination

- Certification record for NDE Level III inspector qualified in Radiography Testing (RT) by Gamma and X-Ray method, certified by Level III on April 12, 2017 due December 19, 2021, with current visual acuity examination

- Certification record for NDE Level III inspector qualified in LP Type 1 Method A, C, & D, Type II, Method A & C, certified by Level III on November 22, 2016 due November 15, 2021, with current visual acuity examination

- Certification record for NDE Level III inspector qualified in Eddy Current Surface and Subsurface method, certified by Level III on September 11, 2014 due November 30, 2018, with current visual acuity examination

- Certification record for NDE Level III inspector qualified in LP due April 25, 2023, MP by Yoke Method due April 25, 2023 and RT in Gamma, & X-Ray and Computed Radiography Endorsement due December 2, 2020, certified by Level III with current visual acuity examination

- Certification record ATS 928, “Material Testing Department Mechanical Proficiency Checklist,” for test engineer, certified on May 1, 2017, qualified to perform mechanical test, hardness test

- Certification record ATS 928 for Material Testing Engineer, certified on January 21, 2018

- Certification record ATS 929, “Material Testing Department Metallurgy Proficiency Checklist,” for two Materials Testing Engineers, certified on January 21, 2018

- Certification record ATS 317, “Chemistry Department Chemistry Proficient Checklist,” for two chemists certified on March 29, 2018

Miscellaneous Documents

- ISO/IEC 17025:2005(E), paragraph 5.4.6, “Estimation of Uncertainty of Measurement”
- ATS Memo dated December 29, 2017, “NDT Procedure Principal NDT Level III and Responsible NDT Level III Appointments”
- Out of Tolerance Investigation 2018-973, for Konica Minolta T-10A Light Meter, dated February 28, 2018
- Out of Tolerance Investigation 2018-1008, for Fluke 753 Process Calibrator, dated June 27, 2018
- Out of Tolerance Investigation No. 2018-1011
- NDT Inspection Equipment Densitometer Calibration Log for s/n 028291, using calibrated density strip standard S/N 7903211 calibration due January 22, 2019
- Final Inspection package for ATS Job No. 296970, Phase IT, dated August 17, 2018
- Final inspection package for ATS Job No. T287900, dated February 19, 2018

Corrective Action Reports (CARs)

- CAR Nos: 2018-1388, 2018-1404, 2018-1389, 2018-1374, and 2017-1269

CARs opened during the inspection

- CAR 2018-1408, dated December 4, 2018
- CAR No. 2018-1409, Revision 0, dated December 6, 2018

5. Acronyms and Abbreviations

ASME	American Society of Mechanical Engineers
ASNT	American Society for Nondestructive Testing
CAP	corrective action program
CAR	corrective action report
CFR	Code of Federal Regulations
CGD	commercial-grade dedication
EC	eddy current
EPRI	Electric Power Research Institute
IEC	International Electrotechnical Commission
ISO	International Standard Organization
LP	liquid penetrant
M&TE	measuring and test equipment
NDE	non-destructive evaluation

NEI	Nuclear Energy Institute
NIAC	Nuclear Industry Assessment Committee
NRC	U.S. Nuclear Regulatory Commission
PO	purchase order
QA	quality assurance
QAP	quality assurance procedure
RG	regulatory guide
VT	visual testing
MP	fluorescent magnetic particle
UT	ultrasonic testing