



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

November 19, 2021

Mr. Fred Jefferson
Nuclear Quality Manager
NTS Huntsville
7800 Highway 20 West
Huntsville, AL 35806

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF
NTS HUNTSVILLE NO. 99900905/2021-201 AND NOTICE OF
NONCONFORMANCE

Dear Mr. Jefferson:

From October 18 through October 22, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a routine vendor inspection at the NTS Huntsville's (hereafter referred to as NTS) facility in Huntsville, AL. The purpose of this limited-scope inspection was to assess NTS' compliance with 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 NTS' implementation of the quality activities associated with safety-related testing services provided to U.S. nuclear power plants and advanced reactors. The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC's endorsement of NTS' overall quality assurance (QA) program.

During this inspection, the NRC inspection team found that the implementation of your QA program did not meet certain regulatory requirements imposed on you by your customers or NRC licensees. Specifically, the NRC inspection team determined that NTS was not fully implementing its QA program in the areas of control of purchased material, equipment, and services and corrective action. The specific findings and references to the pertinent requirements are identified in the enclosures to this letter. In response to the enclosed notice of nonconformance (NON), NTS should document the results of the extent of condition review for these findings and determine if there are any effects on other safety-related components.

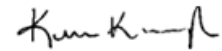
Please provide a written statement or explanation within 30 days of this letter in accordance with the instructions specified in the enclosed NON. We will consider extending the response time if you show good cause for us to do so.

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, its enclosure, and your response through the NRC's 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>. To the extent possible, your response

(and if applicable), should not include any personal privacy, proprietary, or Safeguards Information (SGI) 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, 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 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 would 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 SGI 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,

Kerri A. Kavanagh, Chief
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation



Signed by Kavanagh, K
on 11/19/21

Docket No.: 99900905

EPID No.: I-2021-201-0062

Enclosures:

1. Notice of Nonconformance
2. Inspection Report No. 99900905/2021-201
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT
OF

NTS HUNTSVILLE NO. 99900905/2021-201 AND NOTICE OF
NONCONFORMANCE Dated: November 19, 2021

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NRR-106

OFFICE	NRR/DRO/IQVB	NRR/DRO/IQVB	NRR/DRO/IQVB	NRR/DRO/IQVB
NAME	YDiaz-Castillo	AKeim	OAYegbusi	FVega
DATE	11/15/2021	11/16/2021	11/16/2021	11/16/2021
OFFICE	NRR/DSS/SNRB	NRR/DRO/IRAB	NRR/DRO/IQVB	
NAME	SLu	BHughes	KKavanagh	
DATE	11/16/2021	11/17/2021	11/19/2021	

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NOTICE OF NONCONFORMANCE

NTS Huntsville
7800 Highway 20 West
Huntsville, AL 35806

Docket No. 99900905
Report No. 2021-201

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the NTS Huntsville (hereafter referred to as NTS) facility in Huntsville, AL, from October 18, 2021 through October 22, 2021, NTS did not conduct certain activities in accordance with NRC requirements that were contractually imposed upon NTS by its customers or NRC licensees.

- A. Criterion VII, "Control of Purchased Material, Equipment, and Services," 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," states, in part, that "Measures shall be established to assure that purchased material, equipment, and services, whether purchased directly or through contractors and subcontractors, conform to the procurement documents. These measures shall include provisions, as appropriate, for source evaluation and selection, objective evidence of quality furnished by the contractor or subcontractor, inspection at the contractor or subcontractor source, and examination of products upon delivery. The effectiveness of the control of quality by contractors and subcontractors shall be assessed by the applicant or designee at intervals consistent with the importance, complexity, and quantity of the product or services."

Section 3.0, "Supplier Evaluation Methods," of NTS' Quality Assurance Procedure (QAP) HSV 7-1, "Supplier Evaluation and Approved Suppliers List," Revision 7, dated June 7, 2021, states, in part that "[...] an initial on-site audit of the supplier's Quality Assurance Program is conducted. Subsequent on-site audits are conducted on a triennial basis."

Contrary to the above, as of October 22, 2021, NTS failed to establish adequate measures for source evaluation and selection to verify the effectiveness of the control of quality by contractors and subcontractors to assure that purchase services conform to the procurement documents. Specifically, NTS did not perform an on-site commercial-grade survey of a supplier of calibration services to determine the adequacy of the supplier's quality controls to ensure that the critical characteristics of the calibration services continue to be acceptable. Instead, NTS performed a fully remote commercial-grade survey of the calibration supplier.

This issue has been identified as Nonconformance 99900905/2021-201-01.

- B. Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50, states, in part, that "Measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected."

NTS' QAP HSV 16-1, "Corrective Preventive Action Program," Revision 3, dated June 15, 2020, provides for the identification and problem reporting, investigation of the problem for cause, reporting of the corrective actions, including the results of those actions, and evaluation of the effectiveness of the corrective action.

Contrary to the above, as of October 22, 2021, NTS failed to promptly correct conditions adverse to quality. Specifically, NTS failed to implement corrective actions to address Nonconformance 99900905/2015-202-01 as documented in Corrective/Preventive Action Report (CPAR) No. 15-019. Both NTS's official response to the NRC and CPAR No. 15-019 stated that NTS would establish a formal written procedure with data sheets for the performance of routine pre-test and post-test verification checks (spanning) of test equipment. In addition, NTS stated that it would retrain personnel on the specific Criterion XI, "Test Control," and Criterion V, "Instructions, Procedures, and Drawings," of Appendix B to 10 CFR Part 50 to ensure future processes are properly documented. During the inspection, the NRC inspection team identified that NTS closed CPAR No. 15-019 and did not have any objective evidence that a formal procedure was written or that NTS personnel were trained.

This issue has been identified as Nonconformance 99900905/2021-201-02.

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, Quality Assurance and Vendor Inspection Branch, Division of Reactor Oversight, Office of Nuclear Reactor Regulation, 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 further noncompliance; and (4) the date when the 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's Public Document Room or from the NRC's Agencywide Documents Access and Management System, which is accessible from the NRC's 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 (SGI) so that the NRC can make it 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 would 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 SGI 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 19th day of November 2021.

**U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
DIVISION OF REACTOR OVERSIGHT
VENDOR INSPECTION REPORT**

Docket No.: 99900905

Report No.: 99900905/2021-201

Vendor: NTS Huntsville
7800 Highway 20 West
Huntsville, AL 35806

Vendor Contact: Mr. Fred Jefferson
Nuclear Quality Manager
Email: fred.jefferson@nts.com
Phone: 256-716-4329

Nuclear Industry Activity: NTS Huntsville provides the following services to U.S. nuclear power plants and advance reactors: third party seismic and environmental qualification, measurement and testing equipment calibration services, safety relief valve and snubber testing/refurbishment, and third-party dedication of seismic and environmentally qualified level transmitters, NTS series 812 relays, digital recorders, and circuit breakers.

Inspection Dates: October 18 - 22, 2021

Inspectors:

Yamir Diaz-Castillo	NRR/DRO/IQVB	Team Leader
Andrea Keim	NRR/DRO/IQVB	
Odunayo Ayegbusi	NRR/DRO/IQVB	
Frankie Vega	NRR/DRO/IQVB	Trainee
Shanlai Lu	NRR/DSS/SNRB	Technical Specialist

Approved by: Kerri A. Kavanagh, Chief
Quality Assurance and Vendor Inspection Branch
Division of Reactor Oversight
Office of Nuclear Reactor Regulation

EXECUTIVE SUMMARY

NTS Huntsville
99900905/2021-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a routine vendor inspection at the NTS Huntsville (hereafter referred to as NTS) facility in Huntsville, AL, 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." The NRC inspection team conducted this inspection from October 18 through October 22, 2021. This was the second NRC inspection at the NTS facility.

This technically-focused inspection specifically evaluated NTS' implementation of the quality activities associated with safety-related testing services provided to the U.S. nuclear power plants and advanced reactors. Specific activities observed by the NRC inspection team included:

- Safety relief valve testing for Brunswick Steam Electric Plant
- Reactor vent valve testing for the NuScale advanced power reactor
- Commercial-grade dedication of a level transmitter for PSEG Nuclear, LLC for purchase order (PO) No. 4501156251
- Calibration of a caliper and a micrometer

These regulations served as the bases for the NRC inspection:

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

During the course of this inspection, the NRC inspection team implemented Inspection Procedure (IP) 43002, "Routine Inspections of Nuclear Vendors," dated January 27, 2017, IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated January 27, 2017, and IP 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting Defects and Noncompliance," dated May 16, 2019.

With the exception of the minor issue and nonconformances described below, the NRC inspection team concluded that NTS' QA policies and procedures comply with the applicable requirements of Appendix B to 10 CFR Part 50 and 10 CFR Part 21, and that NTS personnel are implementing these policies and procedures effectively. The results of this inspection are summarized below.

Supplier Oversight

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its supplier oversight program to verify compliance with the regulatory 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 one minor issue and one nonconformance associated with NTS' implementation of its supplier oversight program.

During the review of a sample of commercial-grade surveys, the NRC inspection team noted that NTS conducted a hybrid (partially remote and on-site) commercial-grade survey of a supplier of circuit breakers during a two-week period. The NRC inspection team determined this issue to be minor because the commercial-grade survey report provided sufficient objective evidence to show that the critical characteristics were adequately controlled. NTS initiated Corrective/Preventive Action Report (CPAR) No. 21-035 to address this issue.

The NRC inspection team issued Nonconformance 99900905/2021-201-01 in association with NTS' failure to implement the regulatory requirements Criterion VII of Appendix B to 10 CFR Part 50. Nonconformance 99900905/2021-201-01 cites NTS for failing to establish adequate measures for source evaluation and selection to verify the effectiveness of the control of quality by contractors and subcontractors to assure that purchase services conform to the procurement documents. Specifically, NTS did not perform an on-site commercial-grade survey of a supplier of calibration services to determine the adequacy of the supplier's quality controls to ensure that the critical characteristics of the calibration services continue to be acceptable. Instead, NTS performed a fully remote commercial-grade survey of the calibration supplier. NTS initiated CPAR No. 21-035 to address this issue.

Nonconforming Material, Parts, or Components and Corrective Action

The NRC inspection team reviewed NTS' policies and procedures that govern the implementation of its nonconforming materials, parts, or components and corrective action programs to verify compliance 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. The NRC inspection team reviewed a sample of nonconforming material reports and notice of deviation reports and confirmed that they were adequately documented, reviewed, tracked, and dispositioned. In addition, the NRC inspection team reviewed the implementation and closure of the corrective actions opened by NTS to address Notice of Nonconformance (NON) 99900905/2015-201-01, documented in the NRC inspection report No. 99900905/2015-201, dated March 26, 2005 (Agencywide Documents Access and Management System Accession (ADAMS) No. ML15078A379) as well as NONs 99900905/2015-202-01 and 99900905/2015-202-02, documented in the NRC inspection report No. 99900905/2015-202, dated June 25, 2015 (ADAMS Accession No. ML15152A080).

The NRC inspection team issued Nonconformance 99900905/2021-201-02 in association with NTS' failure to implement the regulatory requirements of Criterion XVI of Appendix B to 10 CFR Part 50. Nonconformance 99900905/2021-201-02 cites NTS for failing to promptly correct conditions adverse to quality. Specifically, in response to NON 99900905/2015-202-01, NTS initiated and closed CPAR No. 15-019 without completing the prescribed corrective actions of developing a formal written procedure with data sheets for the performance of routine pre-test and post-test verification check (spanning) of test equipment and without re-training their personnel. NTS initiated CPAR No. 21-031 to address this issue.

Commercial-Grade Dedication

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its commercial-grade dedication program to verify compliance with the requirements of Criterion III, "Design Control," and Criterion VII of Appendix B to 10 CFR Part 50. The NRC inspection team observed and evaluated the commercial-grade dedication of a level transmitter. In addition, the NRC inspection team reviewed and evaluated a sample of completed commercial-grade dedication packages including the technical evaluations used to identify the critical characteristics and acceptance criteria. No findings of significance were identified.

Test Control

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its test control program to verify compliance with the requirements of Criterion XI, "Test Control" of Appendix B to 10 CFR Part 50. The NRC inspection team witnessed a safety relief valve testing for Brunswick Steam Electric Plant and a reactor vent valve testing for the NuScale advanced power reactor. The NRC inspection team confirmed the testing was performed in accordance with NTS' test procedures using calibrated measuring and test equipment (M&TE). No findings of significance were identified.

Control of Measuring and Test Equipment

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its M&TE program to verify 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 M&TE was calibrated, labeled, tagged, handled, stored, or otherwise controlled to indicate the calibration status and its traceability to nationally recognized standards. No findings of significance were identified.

10 CFR Part 21 Program

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its 10 CFR Part 21 program to verify compliance with 10 CFR Part 21. The NRC inspection team: (1) reviewed the 10 CFR Part 21 postings; (2) reviewed a sample of POs; (3) verified that NTS' nonconformance and corrective action programs provide a link to the 10 CFR Part 21 program; and (4) reviewed a sample of 10 CFR Part 21 evaluations performed by NTS. No findings of significance were identified.

REPORT DETAILS

1. Supplier Oversight

a. Inspection Scope

The U.S. Nuclear Regulatory Commission (NRC) inspection team reviewed NTS Huntsville's (NTS') policies and implementing procedures that govern the implementation of its supplier oversight program to verify 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 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."

The NRC inspection team reviewed NTS' Approved Supplier List (ASL), a sample of purchase orders (POs), supplier audits, commercial-grade surveys, and receipt inspection records. For the sample of POs reviewed, the NRC inspection team verified that the POs included, as appropriate: the scope of work, right of access to the suppliers' facilities, and extension of contractual requirements to sub-suppliers. The NRC inspection team also confirmed that the POs adequately invoked the applicable technical, regulatory, and quality requirements. In addition, the NRC inspection team verified that for the sample of receipt inspection records reviewed (e.g., receipt inspection reports, Certificates of Compliance, and Certificate of Calibration), these records were (1) reviewed by NTS for compliance with the requirements of the POs and (2) the records contained the applicable technical and regulatory information.

For the sample of supplier audits reviewed, the NRC inspection team verified that the audit reports included an audit plan, any findings identified, adequate documented objective evidence of compliance with the applicable requirements, and a review by NTS' responsible management. The NRC inspection team also verified that the supplier audits were performed by qualified auditors. In addition, the NRC inspection team reviewed a sample of training and qualification records of NTS' lead auditors and confirmed that auditing personnel had completed all the required training and had maintained the applicable qualification and certification in accordance with NTS' policies and procedures.

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

b. Observations and Findings

During the review of a sample of commercial-grade surveys, the NRC inspection team noted that NTS conducted a hybrid (partially remote and on-site) commercial-grade survey of a commercial supplier of circuit breakers during a two-week period. During discussions with NTS' staff, the NRC inspection team learned that NTS was on-site during the first week of the commercial-grade survey and verified all the programmatic controls applied to the critical characteristics implemented by the commercial supplier. During the second week of the commercial-grade survey, NTS remotely observed some production testing and then closed the commercial-grade survey. NTS' staff stated that

the additional testing observed was not necessary to determine if the supplier had implemented adequate programmatic controls over the critical characteristics. The NRC inspection team determined this issue to be minor because the commercial-grade survey report provided sufficient objective evidence that the critical characteristics were adequately controlled. NTS initiated Corrective/Preventive Action Report (CPAR) No. 21-035 to address this issue.

The NRC inspection team also noted that NTS conducted a fully remote commercial-grade survey of a supplier of calibration services. During discussions with NTS' staff, the NRC inspection team learned that the commercial-grade survey was performed fully remote due to the travel restrictions associated with the COVID-19 pandemic. At the time NTS performed the fully remote commercial-grade survey (April-May 2021), the NRC staff had not approved fully remote assessments as an effective alternative for performing commercial-grade surveys during exigent conditions (e.g., COVID-19 pandemic). In addition, Section 3.0, "Supplier Evaluation Methods," of NTS' Quality Assurance Procedure HSV 7-1, "Supplier Evaluation and Approved Suppliers List," Revision 7, dated June 7, 2021, states, in part that "[...] an initial on-site audit of the supplier's Quality Assurance Program is conducted. Subsequent on-site audits are conducted on a triennial basis." Furthermore, NTS did not develop any guidance or establish any controls for the performance of the remote commercial-grade survey to ensure the supplier was adequately controlling the critical characteristics.

The NRC staff's position on allowing fully remote assessments during exigent conditions is documented in a Safety Evaluation Report dated June 22, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21161A201). The NRC staff's position of allowing alternatives, due to temporary suspension of performance assessments at the source based on restrictions such as travel, access to supplier's facility, etc., associated with exigent conditions (e.g., COVID-19), are not intended to replace the ability to evaluate, observe, and verify activities at the source. Permanent suspension of in-person assessments at the source cannot be granted without a change to the regulation.

The NRC inspection team identified this issue as an example of Nonconformance 99900905/2021-201-01 for NTS' failure to establish adequate measures for source evaluation and selection to verify the effectiveness of the control of quality by contractors and subcontractors to ensure that purchased services conform to the procurement documents. NTS initiated CPAR No. 21-035 to address this issue.

c. Conclusion

The NRC inspection team issued Nonconformance 99900905/2021-201-01 in association with NTS' failure to implement the regulatory requirements of Criterion VII of Appendix B to 10 CFR Part 50. Nonconformance 99900905-2021-201-01 cites NTS for failing to perform source evaluation and selection to verify the effectiveness of the control of quality by contractors and subcontractors to ensure that purchased services conform to the procurement documents. Specifically, NTS performed a fully remote commercial-grade survey of a supplier of calibration services.

2. Nonconforming Materials, Parts, or Components and Corrective Action

a. Inspection Scope

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its nonconforming materials, parts, or components and corrective action programs to verify compliance with the requirements of Criterion XV, "Nonconforming Materials, Parts, or Components," and Criterion XVI, "Corrective Action," of Appendix B to 10 CFR Part 50.

The NRC inspection team confirmed that NTS' processes and procedures provide for the identification, documentation, segregation, evaluation, and disposition of nonconforming items. These processes also apply the principles of rework/repair, scrap, return to vendor, or "use as-is". NTS uses two processes for nonconforming items and testing. A nonconforming material report (NMR) is used for nonconforming material, items, and services found during receipt and commercial-grade dedication inspections or testing. A notice of deviation (NOD) is used to document and control anomalous conditions related to the test specimen, test procedure and/or test equipment, and are included as part of the project test report. The NRC inspection team also reviewed a sample of NMRs and NODs associated with safety-related items and testing and confirmed that NTS: (1) dispositioned the NMRs and NODs in accordance with the applicable procedures; (2) documented the appropriate technical justification for the dispositions; and (3) took adequate corrective actions as necessary.

The NRC inspection team also reviewed a sample of CPARs and confirmed that these contain: (1) adequate documentation and description of conditions adverse to quality; (2) an appropriate analysis of the cause of these conditions and the corrective actions taken to prevent recurrence; (3) direction for review and approval by the responsible authority; (4) a description of the current status of the corrective actions; and (5) the actions taken to verify timely and effective implementation of the corrective actions.

The NRC inspection team reviewed that NTS' processes and procedures for NMRs, NOD and CPARs provide a link to the 10 CFR Part 21, "Reporting of Defects and Noncompliance," program for applicability and evaluation.

The NRC inspection team also discussed the nonconforming materials, parts, or components and corrective action programs with NTS' management and technical staff. The attachment to this inspection report lists the documents reviewed and personnel interviewed by the NRC inspection team.

b. Observations and Findings

Corrective Action Associated with Nonconformance 99900905/2015-201-01

Following the December 2014 and February 2015 inspections of NTS, the NRC issued Nonconformance 99900905/2015-201-01 for NTS' failure to perform sufficient actions to ensure suitability of processes that are essential to the safety-related functions of the components being tested. Specifically, NTS failed to take sufficient measures to validate the accuracy of a commercial vendor's irradiation system as applied to the components sent for irradiation at a commercial facility by NTS.

In its response dated April 14, 2015 (ADAMS Accession No. ML15113A338), NTS stated that it would: (1) issue dedication plan No. NTPQ-001 to address commercial-grade services; (2) perform a commercial-grade survey at the irradiation facility (White Sands) in accordance with NTPQ-001; and (3) it would gather samples of thermoluminescent dosimeters (TLDs) during the commercial-grade survey and subject the samples to material testing to verify they are in conformance with American Society for Testing and Materials (ASTM) E668-10, "Standard Practice for Application of Thermoluminescence-Dosimetry (TLD) Systems for Determining Absorbed Dose in Radiation-Hardness Testing of Electronic Devices."

The NRC staff closed Nonconformance 99900905/2015-201-01 in a letter to NTS dated April 27, 2018 (ADAMS Accession No. ML18102B171). The closure was based on the proposed corrective actions by NTS as documented in its response letter to the NRC dated April 14, 2015.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion of the corrective actions. The NRC inspection team confirmed that NTS: (1) developed a dedication plan to address commercial-grade services; (2) performed a commercial-grade survey of the irradiation facility in accordance with the dedication plan; and (3) tested the TLD samples and documented their conformance with ASTM E668-10 in a technical report.

The NRC inspection team determined that NTS' corrective actions were adequately implemented to address Nonconformance 99900905/2015-201-01. No findings of significance were identified.

Corrective Action Associated with Nonconformance 99900905/2015-202-01

Following the May 2015 inspection of NTS, the NRC issued Nonconformance 99900905/2015-202-01 for NTS' failure to ensure that test activities affecting quality were prescribed by documented instructions or procedures that shall include appropriate quantitative or qualitative acceptance criteria to assure that all prerequisites for the given test have been met. Specifically, NTS failed to establish a procedure in its test program for verifying that the data acquisition system (DAS) functioned as designed. NTS performed both pre- and post-test verification and validation of the DAS to verify that the DAS software was accurately calculating and reporting those temperature and pressure values that would be used to determine the qualification of the safety-related AP1000 8-inch low pressure squib valves. However, NTS' activities to validate the proper function of the DAS, a testing activity affecting quality, were not performed in accordance with written procedures containing the requirements and acceptance limits of the design documents to ensure that all prerequisites for the given test have been met.

In its response dated July 27, 2015 (ADAMS Accession No. ML15229A302), NTS stated that it would establish and provide a formal written procedure with data sheets for the performance of the routine pre-test and post-test verification checks (spanning) of the test equipment and that it would re-train appropriate personnel on the specific Criterion XI and Criterion V, "Instructions, Procedures, and Drawings," of Appendix B to 10 CFR Part 50 to ensure future processes are properly documented. Similar to Nonconformance 99900905/2015-201-01 as discussed above, the NRC staff closed Nonconformance 99900905/2015-202-01 in the letter to NTS dated April 27, 2018. The

closure was based on the proposed corrective actions by NTS as documented in its response letter to the NRC dated July 27, 2015.

During this inspection, the NRC inspection team noted that NTS had initiated and closed CPAR No. 15-019 to address Nonconformance 99900905/2015-202-01. CPAR No. 15-019 documented NTS' plans for establishing a formal written procedure with data sheets as well as re-training of NTS' personnel. Upon further questioning by the NRC inspection team, NTS was unable to provide any objective evidence to demonstrate that the corrective actions were adequately implemented. The NRC inspection team determined that NTS did not develop a formal written procedure and did not provide any training to NTS' personnel.

The NRC inspection team identified this issue as an example of Nonconformance 99900905/2021-201-02 for NTS' failure to promptly correct a condition adverse to quality. NTS initiated CPAR No. 21-031 to address this issue.

Corrective Action Associated with Nonconformance No. 99900905/2015-202-02

Following the May 2015 inspection of NTS, the NRC issued Nonconformance 99900905/2015-202-02 for NTS' failure to ensure that purchased services, purchased directly or through a contractor or subcontractors, conform to the procurement documents and failed to perform source evaluation and selection to verify the effectiveness of the control of quality by contractors and subcontractors at intervals consistent with the importance, complexity, and quality of the products and services. Specifically, NTS failed to perform a commercial-grade survey or source surveillance of NALCO, a commercial supplier of water and process services, to verify the effectiveness of quality controls used in testing of demineralized water to support safety-related valve testing. In addition, NTS failed to assure that the validity of the commercial supplier's water chemical analysis upon receipt would provide reasonable assurance that pH, conductivity, fluoride, and chlorides met the demineralized water quality specifications invoked in procurement documents.

In its responses dated July 27, 2015 and September 2, 2015 (ADAMS Accession Nos. ML15229A302 and ML15260A548, respectively), NTS stated that it would not use NALCO for testing of demineralized water and would determine if NALCO should be surveyed, evaluated and added to the NTS' ASL. NTS also clarified that the testing performed by the commercial supplier to check the demineralized water was for routine informational purposes for protection of the boiler system. In 2011 and in 2015, NTS sent comparison samples to TMC (an NTS approved supplier) and compared the results to the analysis provided by NALCO, to provide confidence that the water quality was in range for demineralized water. The results from TMC and NALCO in 2011 and 2015 were satisfactory with minimal difference and within the proper range for demineralized water. NTS also evaluated any potential adverse impact on safety relief valves (SRVs) that may have been exposed to impurities by the demineralized water at NTS and determined there was no impact based on the water analysis.

In addition, NTS stated that it would issue a directive effective immediately that all POs for materials and services used on nuclear projects must contain quality assurance (QA) requirements and be approved by QA prior to final purchase of the material or services. Further, all Department Managers and Purchasing would be re-trained on NTS' procedures for vendor assessment and purchasing of safety-related commercial-grade materials and services.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion of the corrective actions. The NRC inspection team confirmed that: (1) NALCO was not added to the ASL; (2) POs for materials and services used on nuclear projects contain QA requirements and are approved by QA prior to final purchase; and (3) Department Managers and Purchasing received training on NTS' procedures for vendor assessment and purchasing of safety-related commercial-grade materials and services. The NRC inspection team also verified that the testing performed by TMC and NALCO were acceptable and comparable. In addition, the NRC inspection team discussed the extent of condition and the requirements for the testing of the water.

The NRC inspection team determined that NTS' corrective actions were adequate to address Nonconformance 99900905/2015-202-02. Based on the review of the corrective actions, the NRC inspection team closed Nonconformance 99900905/2015-202-02. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that NTS is implementing its nonconforming materials, parts, or components program in accordance with the regulatory requirements of Criterion XV of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that NTS is implementing its policies and procedures associated with the nonconforming materials, parts, or components program. No findings of significance were identified.

The NRC inspection team issued Nonconformance 99900905/2021-201-02 in association with NTS' failure to implement the regulatory requirements of Criterion XVI of Appendix B to 10 CFR Part 50. Nonconformance 99900905/2021-201-02 cites NTS for failing to promptly correct conditions adverse to quality. Specifically, NTS failed to implement the corrective actions documented in CPAR No. 15-019 and in NTS' response to the NRC to address Nonconformance 99900905/2015-202-01.

3. Commercial-Grade Dedication

a. Inspection Scope

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its commercial-grade dedication program to verify compliance with the regulatory requirements of Criterion III, "Design Control," and Criterion VII of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed a sample of four commercial-grade dedication packages of a terminal block, two circuit breakers, and a level transmitter to assess the implementation of the commercial-grade dedication program. The NRC inspection team verified that the technical evaluations documented the criteria for the identification of item functions, credible failure mechanisms/modes, selection of critical characteristics and acceptance criteria, and the identification of verification methods. The NRC inspection team also observed the commercial-grade dedication of a level transmitter.

The NRC inspection team verified that: (1) the critical characteristics and acceptance methods were correctly specified; (2) the drawings and material specifications containing

the associated acceptance criteria for each critical characteristic were referenced; and (3) the inspection reports adequately documented the acceptance of the critical characteristics.

The NRC inspection team also discussed the commercial-grade dedication program with NTS' management and technical staff. The attachment to this inspection report lists the documents reviewed and personnel interviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that NTS is implementing its commercial-grade dedication program in accordance with the regulatory requirements of Criterion III and Criterion VII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed and activities observed, the NRC inspection team also determined that NTS is implementing its policies and procedures associated with the commercial-grade dedication program. No findings of significance were identified.

4. Test Control

a. Inspection Scope

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its test control program to verify compliance with the requirements of Criterion XI, "Test Control," of Appendix B to 10 CFR Part 50.

The NRC inspection team witnessed a SRV test for Brunswick Steam Electric Plant and a reactor vent valve (RVV) test for the NuScale advanced power reactor. The purpose of the SRV testing is to measure the opening and closure pressure set points. A main adjustable valve was used to gradually raise the upstream pressure until it reaches the valve pressure set point. The valve's linear variable differential transformer was measured throughout the testing. The valve was found to open once the upstream pressure exceeds the set point. After the valve opened, the system pressure decreased, and the valve closed as expected. The purpose of the RVV testing was to measure the RVV flow capacity using nitrogen with the upstream pressure up to 90 psig. The NRC inspection team also reviewed the test records for a completed SRV testing and confirmed that all the test requirements have been met. The NRC inspection team confirmed that both tests were performed using properly calibrated measuring and test equipment (M&TE).

For both tests, the NRC inspection team verified that NTS' test procedures adequately included the applicable technical, quality, and regulatory requirements. The NRC inspection team also confirmed that the following testing elements were satisfied, verified, and recorded, as appropriate: (1) test parameters and initial conditions, (2) test acceptance criteria, (3) test prerequisites, (4) test instrument range, accuracy, and uncertainty appropriate for the test; (5) current calibration, and (6) proper procedure sequence followed and any deviations documented and evaluated.

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

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that NTS is implementing its test control program in accordance with the regulatory requirements of Criterion XI of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that NRC is implementing its policies and procedures associate with the test control program. No findings of significance were identified.

5. Control of Measuring and Test Equipment

a. Inspection Scope

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its M&TE program to verify 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, the NRC inspection team determined that the M&TE had the appropriate calibration stickers and current calibration dates, including the calibration due date. The NRC inspection team also verified 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 or as-left conditions, accuracy required, calibration results, calibration dates, and the due date for recalibration. Furthermore, the NRC inspection team also verified that the selected M&TE was calibrated using procedures traceable to known industry standards. The NRC inspection team confirmed that when M&TE equipment is found to be out of calibration, NTS generates an M&TE out-of-tolerance condition 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 NTS' laboratory 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 an internal caliper and micrometer and confirmed that the calibration was performed in accordance with NTS' procedures.

The NRC inspection team also discussed the M&TE program with NTS management and technical staff. The attachment to this inspection report lists the documents reviewed and personnel interviewed by the NRC inspection team.

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that NTS is implementing its M&TE program in accordance with the regulatory requirements of Criterion XII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed and activities observed, the NRC inspection team also determined that NTS is implementing its policies and procedures associated with the M&TE program. No findings of significance were identified.

6. 10 CFR Part 21 Program

a. Inspection Scope

The NRC inspection team reviewed NTS' policies and implementing procedures that govern the implementation of its 10 CFR Part 21 program to verify compliance with the regulatory requirements. In addition, the NRC inspection team evaluated the 10 CFR Part 21 postings and a sample of NTS' safety-related POs to verify compliance with the requirements of 10 CFR 21.21, "Notification of Failure to Comply or Existence of a Defect and its Evaluation," and 10 CFR 21.31, "Procurement Documents." The NRC inspection team also verified that NTS' nonconformance and corrective action procedures provide a link to the 10 CFR Part 21 program. Furthermore, for a sample of 10 CFR Part 21 evaluations performed by NTS, the NRC inspection team verified that NTS had effectively implemented the requirements for evaluating deviations and failures to comply. The NRC inspection team verified that notifications were performed in accordance with the requirements of 10 CFR 21.21, as applicable.

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

b. Observations and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that NTS is implementing its 10 CFR Part 21 program in accordance with the regulatory requirements of 10 CFR Part 21. Based on the limited sample of documents reviewed, the NRC inspection team also determined that NTS is implementing its policies and procedures associated with the 10 CFR Part 21 program. No findings of significance were identified.

7. Entrance and Exit Meetings

On October 18, 2021, the NRC inspection team discussed the scope of the inspection with Gary Dennis, NTS' Director of Operations, and other members of NTS' management and technical staff. On October 22, 2021, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. Dennis and other members of NTS' management and technical staff. The attachment to this report lists the attendees of the entrance and exit meetings, as well as those individuals interviewed by the NRC inspection team.

ATTACHMENT

1. ENTRANCE/EXIT MEETING ATTENDEES

Name	Title	Affiliation	Entrance	Exit	Interviewed
Gary Dennis	Director of Operations	NTS Huntsville	X	X	
Robert Bridges	General Manager	NTS Huntsville	X		
Shane Standridge	Acting Manager for Nuclear Third-Party Qualification (NTPQ)	NTS Huntsville	X	X	X
Lance Phares	Department Manager for Snubbers	NTS Huntsville	X	X	
Greg Mason	Nuclear Marketing Manager	NTS Huntsville	X		
Brad Ferguson	Business Development Director	NTS Huntsville			
Patrick Turrentine	Department Manager for Safety-Related Valves and High Flow	NTS Huntsville	X	X	X
Tom Boonarkat	Department Manager for Nuclear Equipment Qualification	NTS Huntsville	X	X	
Fred Jefferson	Nuclear Quality Assurance Manager	NTS Huntsville	X	X	X
Ralph Yeardeley	Senior Principal Engineer	NTS Huntsville	X	X	X
Jonathan Wright	Senior Engineer	NTS Huntsville			X
Kyle McVay	Project Engineer - NTPQ	NTS Huntsville		X	
John Waits	Engineer	NTS Huntsville			X

Name	Title	Affiliation	Entrance	Exit	Interviewed
Eddie Rea	Quality Management Representative	NTS Huntsville	X	X	X
Steve Felice	Calibration Manager	NTS Huntsville	X		X
Joseph Hamlin	Senior Calibration Technician	NTS Huntsville			X
Michael Javins	Level III Technician	NTS Huntsville			X
Keith Ellis	Test Supervisor	NTS Huntsville			X
James Collins	Test Technician	NTS Huntsville			X
Mike Homm	Technician	NTS Huntsville			X
Truman Porter	Instrumentation Technician	NTS Huntsville			X
Adam Casey	Instrumentation Technician	NTS Huntsville			X
Chris Lewis	Project Engineer	Curtis Wright Target Rock	X		X
Bradyn Wuth	Test Engineer	NuScale	X		X
Yamir Diaz-Castillo	Inspection Team Leader	Nuclear Regulatory Commission (NRC)	X	X	
Andrea Keim	Inspector	NRC	X	X	
Ogunayo Ayegbusi	Inspector	NRC	X	X	
Frankie Vega	Inspector	NRC	X	X	
Shanlai Lu	Technical Specialist	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 May 16, 2019.

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

Item Number	Status	Type	Description
99900905/2015-201-01	CLOSED*	Notice of Nonconformance (NON)	Criterion III Criterion V
99900905/2015-202-01	CLOSED*	NON	Criterion XI Criterion V
99900905/2015-202-02	CLOSED	NON	Criterion VII
99900905/2021-201-01	OPENED	NON	Criterion VII
99900905/2021-201-02	OPENED	NON	Criterion XVI

*These two NONs were previously closed by the NRC staff in a letter dated April 27, 2018 (Agencywide Documents Access and Management System Accession No. ML18102B171).

4. DOCUMENTS REVIEWED

Policies and Procedures

- Huntsville Facilities Nuclear Quality Policy Manual, Revision 8, dated June 7, 2021
- Quality Assurance Procedure (QAP) HSV 4-1, "Procurement of Safety Related Commercial-Grade Materials, Services, and Instrumentation," Revision 7, dated June 15, 2020
- QAP HSV 7-1, "Supplier Evaluation and Approved Suppliers List," Revision 7, dated June 7, 2021
- QAP HSV 7-2, "Source Surveillance and Inspection," Revision 4, dated June 15, 2020
- QAP HSV 12-1, "Control of Measuring and Test Equipment," Revision 1, dated October 26, 2016
- QAP HSV 15-1, "Control of Nonconforming Material, Items, and Services," Revision 4, dated July 14, 2020
- QAP HSV 15-2, "Notice of Deviation," Revision 5, dated October 12, 2021
- QAP HSV 16-1, "Corrective and Preventive Actions," Revision 3, dated June 15, 2021
- QAP HSV 21-1, "Dedication Test Procedure for Commercial Grade Calibration Services," Revision 7, dated October 12, 2021
- QAP HSV 22-1, "Dedication of Commercial Grade Items and Services," Revision 5, dated June 6, 2021

- QAP HSV 19-1, "Reporting of Defects and Noncompliance per 10 CFR Part 21," Revision 5, dated February 9, 2021

Commercial-Grade Dedication Records

- Technical Evaluation for circuit breakers, Revision 0, dated November 11, 2020
- Technical Evaluation No. 19-PR09334 for level transmitters, Revision 2 (no date provided)
- Commercial-Grade Dedication package for purchase order (PO) No. SNG37040-0074, Marathon 216HB Terminal Block, Revision 2, dated November 25, 2020
- Commercial-Grade Dedication package for PO Nos. 10552068 and 10572075, circuit breakers, Revision 8 and Revision 5, respectively, dated June 4, 2021
- Commercial-Grade Dedication package for PO Nos. 10552068, 10558252, and 10570666, circuit breakers Revision 8, Revision 4, and Revision 4, respectively, dated February 24, 2021
- Commercial-Grade Dedication Plan for PO No. 4501156251, level transmitters, dated October 19, 2021
- CNTPQ-001, "Third Party Qualification (TPQ) Dedication Plan for Commercial-Grade Services," Revision 0, dated February 9, 2015

Calibration and Test Records

- "Capacity Determination Procedure for Curtiss-Wright Target Rock ECCS Testing" dated June 11, 2021 (redlined on August 27, 2021 and October 19, 2021)
- Test Procedure No. PROC-PR120605-WTR, "Water Functional Test Procedure for Curtiss-Wright Target Rock ECCS Testing," dated September 16, 2021 (redlined September 24, 2021)
- Certificate of Conformance for Xcel Energy/Prairie Island Nuclear Generating Plant, Project PR141650, dated October 15, 2021
- Test Specification No. TSD-B020-7651, "ECCS Valve Proof Testing," Revision 1, dated June 6, 2020
- Test Procedure No. PROC-PR120605-RST, "Reset Testing Procedure for Curtiss-Wright Target Rock," dated August 26, 2021
- Test Procedure No. 1124, "Testing of Target Rock Two Stage Pilot-Operated Safety Relief Valves Model No. 7567F for Progress Energy Brunswick Nuclear Plant," dated December 14, 2006
- NuScale SW-0120-68461, "ECCS Valve Proof Testing Statement of Work," Revision 1, dated June 18, 2020

- SA-11-023, Addendum-A, "Radiation Aging Wyle Surveillance Report," Revision A, dated July 21, 2015
- Scope of Work (Xcel Energy) PR141650 & PR141650-00
- Certificate of Analysis for pH buffer solution
- Calibration Certificate Receipt Inspection for pH buffer solution
- Calibration Certificate Receipt Inspection for digital multimeter No. WC041457
- Calibration Certificate Receipt Inspection for angle block No. 102732
- Calibration Certificate Receipt Inspection for humidity and temperature transmitter No. 03842
- Calibration Certificate Receipt Inspection for thermocouple simulator No. WC047444
- Calibration Certificate Receipt Inspection for flowmeter No. WC069173
- Certificate of Calibration No. 1-14181216991-1 for digital multimeter No. WC041457, dated March 23, 2021
- Certificate of Calibration No. WYL102732 for angle block No. 102732, dated July 23, 2018
- Certificate of Calibration No. 77340-170424-HMT337-K3550022 for humidity and temperature transmitter No. 03842, dated April 24, 2017
- Certificate of Calibration No. RMA-4371 for thermocouple simulator No. WC047444, dated August 24, 2020
- Certificate of Calibration No. CL-122 for a flowmeter No. WC069173, dated October 13, 2021
- Certificate of Calibration for a thermometer No. WC069173, dated August 31, 2021
- Certificate of Calibration for an infrared probe No. WC046838, dated October 20, 2021
- Certificate of Calibration for a dim meas kit probe No. WC048730, dated October 20, 2021
- Certificate of Calibration for a RTD calibrator No. WC073669, dated October 20, 2021
- Certificate of Calibration for an armature multiplexer No. WC043278, dated October 20, 2021
- Certificate of Calibration for a crimp tool No. WC041964, dated October 20, 2021
- Certificate of Calibration for an infrared thermometer tool No. WC063551, dated October 20, 2021

- Certificate of Calibration for a pressure calibrator No. WC042088, dated October 20, 2021
- Certificate of Calibration for a clamp meter No. WC069319, dated October 20, 2021
- Certificate of Calibration for a thermometer No. WC063436, dated October 20, 2021
- Certificate of Calibration for optim electronics testing equipment, dated August 24, 2020
- Certificate of Calibration for a caliper No. WC046487, dated October 12, 2021
- Certificate of Calibration for a tape measure No. PF002, dated June 28, 2021
- Certificate of Calibration for a caliper No. WC046486, dated September 23, 2021
- Certificate of Calibration for a thermometer No. WC043097, dated February 26, 2021

Purchase Orders, Audit Reports, and Commercial-Grade Surveys

- NTS' Huntsville Operations Approved Suppliers List, Revised on October 13, 2021
- Purchase Order (PO) No. PRPO083282-2 for calibration services, dated July 7, 2018
- PO No. PRPO124577-3a for calibration services, dated March 19, 2021
- PO No. PRPO132190-3 for calibration services, dated October 18, 2021
- PO No. PRPO132260-2a for calibration services, dated October 1, 2021
- PO No. PRPO129924-3 for calibration services, dated July 30, 2021
- PO No. PRPO131191-3 for calibration services, dated September 16, 2021
- PO No. PRPO062043-4a for calibration services, dated April 5, 2017
- PO No. PRPO122442-2a for 3.25-inch bore snubbers, 6-inch stroke, dated January 8, 2021
- PO No. PRPO130401-3 for electrical sensors, dated August 12, 2021
- PO No. PRPO132185-3 for pH calibration solutions, dated September 30, 2021
- PO No. PRPO124674-2a for a piston rod assemblies and seal kits, dated March 4, 2021
- PO No. PRPO132470-3 for electrical components, dated October 7, 2021
- PO No. PRPO130970-2a for insulating push rod, dated September 7, 2021
- NTS Audit Report No. H-SA-19-002 for a supplier of snubbers, dated August 30, 2019

- Nuclear Industry Assessment Corporation Audit Report No. 25019 for a supplier of safety-related services, dated March 18, 2020
- NTS Audit Report for a supplier of snubbers and pipe supports replacement parts, dated September 3, 2020
- Commercial-Grade Survey Report No. NTS-HV-CGS-21-001 of a supplier of medium voltage circuit breakers, dated January 31, 2021
- Commercial-Grade Survey Report No. NTS-HV-CHS-21-003 of a supplier of level transmitters, flow switches, receivers, and spare parts, dated July 17, 2021
- Commercial-Grade Survey Report of a supplier of calibration services, dated May 5, 2021
- Commercial-Grade Survey Report No. NTS-HV-CGS-19-001 of a supplier of calibration services, dated October 11, 2019
- Commercial-Grade Survey Report No. NTS-HSV-CGS-19-003 of a supplier of recorders and signal conditioners, dated September 10, 2019
- Commercial-Grade Survey Report No. NTS-H-V-CGS-15-002 of an irradiation facility, dated February 9, 2015

Nonconformance Material Reports/Notice of Deviations

- Lists of Nonconformance Material Report (NMRs) for 2019, 2020, and 2021
- NMR No. 014-021 for PO No. PRPO128079
- NMR No. 002-19 for PO No. PRP0092223
- NMR No. 006-19 for PO No. PRP004420
- NMR No. 007-19 for PO No. PRP0100746
- Notice of Deviation (NOD) 2 for PO No. 29181
- NOD-1 for PO Nos. 719320/1 and 0712145/1
- NOD-1 for PO No. 10487369
- NOD-1 through NOD-10 for PO No. 56152-1
- NOD-2 for PO No. 56152-2
- Notification of Out-of-Tolerance Condition Control Log for Years 2020 and 2021

Corrective and Preventive Action Reports

- Corrective/Preventive Action Report (CPAR) 15-009
- CPAR No. 16-003
- CPAR No. 16-004
- CPAR No. 16-031
- CPAR No. 19-003
- CPAR No. 17-039, Revision 1
- CPAR No. 20-025
- CPAR No. 20-040
- CPAR No. 20-043
- CPAR No. 20-080

- CPAR No. 21-001
- CPAR No. 21-011
- CPAR No. 21-014
- CPAR No. 21-022
- CPAR No. 21-024

Corrective Action Requests Opened During the NRC Inspection

- CPAR No. 21-022, Revision 1
- CPAR No. 21-029, Revision 2
- CPAR No. 21-031, Revision 1
- CPAR No. 21-034
- CPAR No. 21-035
- CPAR No. 21-036
- CPAR No. 21-037

10 CFR Part 21

- Part 21 Report, "Potential Part 21 on Siemens 401-158 Safety Clip", dated March 14, 2016
- Part 21 Report, "Potential Part 21 on Siemens 401-158 Safety Clip", dated March 17, 2016
- Part 21 Report, "Request for Extension: Potential Part 21 on Siemens 401-158 Safety Clip", dated April 29, 2016
- Part 21 Report, "Request for Additional Extension to Resolve Customer Comments of the Failure Analysis Report: Potential Part 21 on Siemens 401-158 Safety Clip", dated July 18, 2016
- Part 21 Report, "Potential Part 21 on Siemens 401-158 Safety Clip", dated August 15, 2016
- Part 21 Report, "Potential Part 21 on Wyle Laboratories Test Report Nos. 4570 0-1 Rev. A dated November 21, 1988 and 45700-2 dated November 21, 1988, Submergence Test of Gems Liquid Level Transmitter," dated April 25, 2016.
- Part 21 Report, "NTS Potential Part 21 letter dated April 25, 2016 pertaining to submergence testing documented in Wyle Laboratories Test Report Nos. 457001 Rev. A dated November 21, 1988 and 45700-2 Rev. A dated November 21, 1988, dated April 29, 2016
- Part 21 Report, "Part 21 on Siemens 5-3AF-GER-350-1200-78 & 5-3AF-GEU-350-1200-78 Circuit Breaker," dated October 11, 2017
- Part 21 Report, "Closure of Potential Part 21 on Dedicated Items not available for PMI Testing (NUPIC)," dated November 9, 2018
- Part 21 Report, "Part 21 on Yokogawa DXIOOON/PI Series Recorder, with 24 VDC Power Supply," dated December 21, 2016

- Letter from NTS to nbn Elektronik AG, "Part 21 on Yokogawa DX1000N/P1 Series Recorder, with 24 VDC Power Supply (/P1 option code)," dated December 28, 2016
- Letter from NTS to Ameren Union Electric, "Potential Part 21 on Wyle Laboratories Test Report Nos. 45700-1 Rev. A dated November 21, 1988 and 45700-2 dated November 21, 1988, Submergence Test of Gems Liquid Level Transmitter, dated April 25, 2016," dated June 23, 2016

Training Records

- Lead auditor training and qualification records for Fred Jefferson and John Salasky