



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

June 9, 2023

EA-23-010

Donald Smith, Quality Assurance Director
Mistras Services
1480 James Parkway
Heath, OH 43056

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT
OF MISTRAS SERVICES NO. 99902109/2023-201, NOTICE OF
NONCONFORMANCE, AND APPARENT VIOLATIONS

Dear Mr. Smith:

On March 6 – 10, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at the Mistras Services (hereafter referred to as Mistras) facilities in Trainer, PA. The purpose of this limited-scope reactive inspection was to assess Mistras' 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 inspection specifically evaluated Mistras' implementation of the quality activities associated with nondestructive examination services provided for safety-related equipment at U.S. nuclear power plants. The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC endorsement of Mistras' overall quality assurance (QA) or 10 CFR Part 21 program. The NRC inspection team discussed the preliminary inspection findings with you at the conclusion of the on-site portion of the inspection. A final exit briefing was conducted virtually with you on April 19, 2023.

Based on the results of this inspection, the NRC inspection team identified Mistras' failure to satisfy a commitment (see Enclosure 2, Notice of Nonconformance (NON)). Additionally, two apparent violations (see Enclosure 1) were identified and are being considered for escalated enforcement action in accordance with the NRC's Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

Concerning the NON, it was determined that the implementation of your QA program did not meet certain regulatory requirements contractually imposed on you by NRC licensees. Specifically, the NRC inspection team determined that Mistras was not fully implementing its QA program in the area of Criterion I, "Quality Assurance Program," of Appendix B to 10 CFR Part 50. In response to the enclosed NON, Mistras should document the results of the extent of condition review for this finding and determine if there are any effects on 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. Two apparent violations associated with 10 CFR Part 21 are being considered for escalated enforcement action in accordance with the NRC's Enforcement Policy. The first apparent violation involves Mistras' failure to adopt appropriate procedures to evaluate deviations as soon as practicable. The second apparent violation involves Mistras' failure to notify all affected NRC Licensees of a deviation related to Mistras' failure to ensure annual calibrations for the Acoustic Emission (AE) systems. The AE system is used to perform inspections of reactor head and internals lift rigs at NRC licensee facilities. Since the NRC has not made a final determination in these matters, Notices of Violations are not being issued at this time. In addition, please be advised that the number and characterization of the apparent violations described in the enclosed inspection report may change as a result of further NRC review.

Before the NRC makes its enforcement decision, we are providing you an opportunity to attend a Pre-decisional Enforcement Conference (PEC). The PEC will be open for public observation and the NRC will issue a press release to announce the time and date of the conference." Please contact Kerri Kavanagh, Chief, Quality Assurance and Vendor Inspection Branch, at 301-415-3743 within 10 days of the date of this letter to let us know whether you decide to participate in a PEC. A PEC should be held within 30 days. A PEC will afford you the opportunity to provide your perspective on these matters and any other information that you believe the NRC should take into consideration before making an enforcement decision. The decision to hold a PEC does not mean that the NRC has determined that a violation has occurred or that enforcement action will be taken. This conference would be conducted to obtain information to assist the NRC in making an enforcement decision. The topics discussed during the conference may include information to determine whether a violation occurred, information to determine the significance of a violation, information related to the identification of a violation, and information related to any corrective actions taken or planned.

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

Sincerely,



Diaz-Castillo, Yamir signing on behalf
of Kavanagh, Kerri
on 06/09/23

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

Docket No.: 99902109

EPID No.: I-2023-201-0002

Enclosures:

1. Notice of Apparent Violation
2. Notice of Nonconformance
3. Inspection Report No. 99902109/2023-201
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF MISTRAS SERVICES NO. 99902109/2023-201, NOTICE OF VIOLATION, NOTICE OF NONCONFORMANCE DATE: June 9, 2023

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NRR-106

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DATE	5/31/2023	5/31/2023	6/4/2023	6/1/2023
OFFICE	NRR/DRO/IRAB	NRR/DRO/IQVB	OE/EB	OGC/LHE/SE
NAME	BHughes	KKavanagh	DJones	KGamin
DATE	6/1/2023	6/6/2023	5/31/2023	6/9/2023

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APPARENT VIOLATION

Mistras Services
1480 James Parkway
Heath, OH 43056

Docket No. 99902109
Report No. 2023-201

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Mistras Services' (hereafter referred to as Mistras) facility in Trainer, PA from March 6, 2023, through March 10, 2023, two apparent violations of NRC requirements were identified. In accordance with the NRC's Enforcement Policy, the apparent violations are listed below:

Apparent Violation A.

Section 21.21, "Notification of failure to comply or existence of a defect and its evaluation," of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, paragraph (a)(1) requires, in part, that "Each individual, corporation, partnership, dedicating entity, or other entity subject to the regulations in this part shall adopt appropriate procedures to evaluate deviations and failures to comply to identify defects and failures to comply associated with substantial safety hazards as soon as practicable." 10 CFR 21.21(d) requires a director or responsible officer to "notify the Commission when he or she obtains information reasonably indicating a failure to comply or a defect" as described in 10 CFR 21.21(d)(1)(i) or (ii).

As of March 10, 2023, Mistras failed to adopt appropriate procedures to evaluate deviations and failures to comply and identify defects as soon as practicable. Specifically, Mistras implementing procedure for 10 CFR Part 21 did not contain accurate criteria for the evaluation of deviations to determine whether they could lead to a defect as required by 10 CFR 21.21(a)(1). In addition, Mistras procedure 100-QC-017, "Reporting of Defects and Noncompliance in Accordance with 10 CFR Part 21 and 10 CFR 50.55(e)," Revision 5, did not contain accurate criteria for the reporting of potential defects required by 10 CFR 21.21(d), in violation of 10 CFR 21.21(a). As a result of these issues, Mistras failed to perform an adequate evaluation of the deviation related to its failure to ensure periodic annual calibrations for the Acoustic Emission (AE) systems by the original equipment manufacturer or other approved source, which subsequently resulted in the failure to determine whether the deviation would lead to a defect. The AE system is used during inspections of reactor head and internals lift rigs at multiple NRC licensee facilities. This issue has been identified as Apparent Violation 99902109/2023-201-01.

Apparent Violation B.

Section 21.21, "Notification of failure to comply or existence of a defect and its evaluation," of 10 CFR Part 21, paragraph (b) states, in part, that "If the deviation or failure to comply is discovered by a supplier of basic components, or services associated with basic components, and the supplier determines that it does not have the capability to perform the evaluation to determine if a defect exists, then the supplier must inform the purchasers or affected licensees within five working days of this determination so that the purchasers or affected licensees may evaluate the deviation or failure to comply."

Section 5.3 of Mistras' procedure, 100-QC-017, "Reporting of Defects and Noncompliance in Accordance with 10 CFR Part 21 and 10 CFR 50.55(e)," Revision 5, states, in part, that "The Quality Assurance Director, in conjunction with Purchasers or Affected Licensees representatives, shall evaluate the...deficiency and determine if it could create a substantial safety hazard..."

As of March 10, 2023, Mistras, a supplier of services associated with basic components, discovered a deviation, and not having the capability to perform evaluations to determine if a defect exists, failed to inform the purchasers or affected licensees within five working days of this determination so that the purchasers or affected licensees may evaluate the failure to comply. Specifically, on June 15, 2021, Mistras discovered a deviation, related to Mistras' failure to secure regular calibration by the original equipment manufacturer or other approved source for the AE system, and Mistras failed to notify all affected NRC licensees within five working days. The AE system is used to perform AE inspections of reactor head and internals lift rigs at multiple NRC licensee facilities.

This issue has been identified as Apparent Violation 99902109/2023-201-02.

NOTICE OF NONCONFORMANCE

Mistras Services
1480 James Parkway
Heath, OH 43056

Docket No. 99902109
Report No. 2023-201

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Mistras Services' (hereafter referred to as Mistras) facility in Trainer, PA from March 6, 2023, through March 10, 2023, Mistras did not conduct certain activities in accordance with NRC requirements that were contractually imposed on Mistras by its customers or NRC licensees:

Criterion I, "Quality Assurance Program," 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 "The persons and organizations performing quality assurance [(QA)] functions shall have sufficient authority and organizational freedom to identify quality problems; to initiate, recommend, or provide solutions; and to verify implementation of solutions. The persons and organizations performing quality assurance functions shall report to a management level so that the required authority and organizational freedom, including sufficient independence from cost and schedule when opposed to safety considerations, are provided."

Mistras' QA manual, 100-QAP-001, "Quality Manual," Revision 10, Section 5.3.3, defines the authority of responsibility of the QA Director and states the QA Director is independent from cost or schedule considerations. Section 5.3.7 of 100-QAP-001 defines the authority of responsibility of the Quality Manager. This section states, "The Quality Managers have the authority and responsibility to...identify problems in [Quality Assurance Program (QAP)] compliance; initiate, recommend, and provide solutions to QAP compliance problems through designated channels...The Quality Managers are independent from cost or schedule considerations. The Quality Managers have the organizational freedom and unrestricted access to management to resolve quality issues." Section 5.3.8 of QAP-100-001 states that "The individuals responsible for establishing and implementing this QAP may delegate any or all of the work to others but retain responsibility." Section 8.3.5 of 100-QAP-001 states that "Inspection for acceptance shall be performed by qualified persons other than those who performed or directly supervised the work being inspected."

Mistras' procedure, 100-QC-006, "Contract Review and Project Planning" procedure, Revision 6.1, Section 7.1, requires that the Job Traveler contain the Quality Manager/Level 3 signature. Section 7.2 of 100-QC-006 states, in part, that "Upon completion of the work, the inspection reports shall be reviewed to verify that work was done as prescribed in the job traveler in accordance with 100-QC-007. This review will be evidenced by signature and date in [the] project close-out section of the job traveler."

Mistras' procedure, 100-QC-007, "Project Execution," Revision 2, Section 4.1, defines the responsibility of the Quality Manager, which includes overseeing project quality.

Contrary to the above, Mistras failed to ensure that its QA organization has adequate authority and span of control to assure QA functions are adequately performed by individuals with organizational freedom, including sufficient independence from cost and schedule, as defined in Mistras' QA Manual 100-QAP-001, Revision 10. Specifically, the Mistras' Quality Manager: (1) delegated QA functions to individuals within Mistras that did not have sufficient independence from cost and schedule to perform the QA functions, and (2) failed to retain responsibility of the QA functions, as required by Section 5.3.8 of 100-QAP-001. Examples include:

- Mistras failed to ensure reports for Acoustic Emission (AE) inspection of the reactor head and internals lift rigs at nuclear power plants were reviewed by individuals who did not perform or supervise the AE inspections contrary to the requirements of Section 8.3.5 of Mistras' QA Manual, 100-QAP-001. Further, the Quality Manager did not perform any verifications of these inspection reports to confirm that activities affecting the safety-related functions (e.g., the AE inspections) have been correctly performed, as required by 100-QC-007, Section 4.1.
- Mistras failed to ensure that the Quality Manager conducted adequate oversight of project quality for nondestructive examination services performed at NRC licensee facilities, as required by 100-QC-007, Section 4.1. This included omission of Quality Manager/Level 3 signatures on several job travelers for radiographic examination services at nuclear power plants, as required by 100-QC-006, to provide evidence that the inspection reports for these radiographic examination services were reviewed to verify that work was done as prescribed in the job traveler.

This issue has been identified as Nonconformance 99902109/2023-201-03.

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.

In accordance with the requirements of 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," of the NRC's "Rule of Practice," your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction.

If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your

response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

Dated this 9th day of June 2023.

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

Docket No.: 99902109

Report No.: 99902109/2023-201

Vendor: Mistras Services
Donald Smith
630-418-7301
donald.d.smith@mistrasgroup.com

Nuclear Industry Activity: Mistras Services provides nondestructive examination services of safety-related equipment to the commercial nuclear industry.

Inspection Dates: March 6 – 10, 2023

Vendor Location: 5 Nealy Boulevard
Trainer, PA 19061

Inspection Team Leader: Deanna Zhang NRR/DRO/IQVB

Inspectors: Greg Galletti NRR/DRO/IQVB
Dong Park NRR/DRO/IQVB
Michael Fitzgerald NRR/DRO/IQVB, Trainee

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

EXECUTIVE SUMMARY

Mistras Services
99902109/2023-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a reactive vendor inspection at the Mistras Services (hereafter referred to as Mistras) facility in Trainer, PA, to verify 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 on-site from March 6 – 10, 2023.

This technically-focused inspection specifically evaluated Mistras' implementation of the quality activities associated with the performance of nondestructive examination services for safety-related equipment at U.S. nuclear power plants.

- Inspection of measurement and test equipment (M&TE) logs and out-of-tolerance M&TE storage area.
- Observation of a demonstration on the Acoustic Emission (AE) system verification process

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

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

During this inspection, the NRC inspection team implemented Inspection Procedure (IP) 43003, "Reactive Inspections of Nuclear Vendors," dated April 8, 2020, IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated February 10, 2023; and IP 36100, "Inspection of 10 CFR Part 21 and Programs for Reporting of Defects and Noncompliance," dated February 10, 2023.

The results of this inspection are summarized below.

10 CFR Part 21

The NRC inspection team issued Apparent Violations (AV) 99902109/2023-201-01 and 99902109/2023-201-02. AV 99902109/2023-201-01 cites Mistras' failure to adopt appropriate procedures to evaluate deviations and failures to comply and identify defects as soon as practicable. Specifically, Mistras' implementing procedure for 10 CFR Part 21 did not contain accurate criteria for the evaluation of deviations to determine whether they could lead to a defect as required by 10 CFR 21.21(a)(1). In addition, the procedure did not contain accurate criteria for the reporting of potential defects required by 10 CFR 21.21(d), in violation of 10 CFR 21.21(a).. AV 99902109/2023-201-02 cites Mistras' failure to notify all affected NRC licensees of a deviation related to Mistras' failure to secure annual calibration of the AE system used to perform AE inspections of reactor head and internals lift rigs at multiple NRC licensee facilities by the original equipment manufacturer or other approved source, as required by Mistras' implementing

procedure for 10 CFR Part 21.

Organization

The NRC inspection team issued Notice of Nonconformance (NON) 99902109/2023-201-03. NON 99902109/2023-201-03 cites Mistras' failure to ensure that its QA organization has adequate authority and span of control to assure QA functions are adequately performed by individuals with organizational freedom, including sufficient independence from cost and schedule, as defined in Mistras' QA Manual, 100-QAP-001, Revision 10. Specifically, the Mistras' Quality Manager: (1) delegated QA functions to individuals within Mistras that did not have sufficient independence from cost and schedule to perform the QA functions, and (2) failed to retain responsibility of the QA functions, as required by Section 5.3.8 of 100-QAP-001.

Other Inspection Areas

The NRC inspection team determined that Mistras is implementing its commercial-grade dedication, control of special processes, control of measuring and test equipment, nonconforming materials, parts or components, and corrective actions programs in accordance with the applicable regulatory requirements 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 Mistras is implementing its policies and procedures associated with these programs. As a result of this inspection, Mistras generated corrective action reports to address concerns of low significance identified by the NRC inspection team that did not meet the threshold of more than minor concerns as defined by Inspection Manual Chapter 0617, "Vendor and Quality Assurance Implementation Inspection Reports." No findings of significance were identified in these areas.

REPORT DETAILS

1. 10 CFR Part 21 Program

a. Inspection Scope

The U.S. Nuclear Regulatory Commission (NRC) inspection team reviewed Mistras Services (hereafter referred to as Mistras) policies and implementing procedures that govern the implementation of its Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," program to verify compliance with the regulatory requirements. The NRC inspection team also evaluated the 10 CFR Part 21 postings and a sample of Mistras' purchase orders (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 Mistras' nonconformance and corrective action procedures provide a link to the 10 CFR Part 21 program.

The NRC inspection team reviewed the 10 CFR Part 21 evaluation performed by Mistras related to its failure to secure annual calibration of the Acoustic Emission (AE) systems used to perform AE inspections of reactor head and internals lift rigs at multiple NRC licensee facilities by the original equipment manufacturer (OEM) or other approved source. The NRC inspection team also reviewed the corrective action report (CAR)-594-2021.07.20 (323) and nonconformance report (NCR)-594-2021.06.14 (01) associated with this issue.

The NRC inspection team also discussed the 10 CFR Part 21 program with Mistras' 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

The NRC inspection team reviewed Mistras' 10 CFR Part 21 implementing procedure, 100-QC-017, "Reporting of Defects and Noncompliance in Accordance with 10 CFR Part 21 and 10 CFR 50.55(e)," Revision 5, and observed that the procedure did not contain adequate criteria to evaluate deviations and failures to comply and identify defects as soon as practicable, as required by 10 CFR 21.21(a). In addition, the procedure did not contain accurate criteria for the reporting of potential defects required by 10 CFR 21.21(d), in violation of 10 CFR 21.21(a). As a result of these issues, Mistras failed to perform an adequate evaluation of the deviation related to Mistras' failure to secure annual calibration of the AE systems used for inspections of reactor head and internals lift rigs at multiple NRC licensee facilities by the OEM or other approved source. Specifically, Mistras stated in its 10 CFR Part 21 evaluation that "The effectiveness of the AE monitoring process is verified prior to every lift rig inspection through multiple methods, the most direct being a 'lead break' check where the instrument detects the sound emitted from the breaking lead...while there is evidence that the applicable checks/performance verifications are performed prior to and after a lift rig inspection including checklists and affidavits, documentation of these events is inconsistent."

During the review of a sample of lift rig AE inspection reports, the NRC inspection team observed that there were instances where the data collected during the lead break checks was inconsistent with the acceptance criteria provided. Specifically, the NRC

inspection team observed that there were instances where the lead break checks at certain AE sensor locations exceeded the acceptable limits specified in the report. The report did not contain any justification for accepting the data as-is and Mistras did not provide objective evidence to support accepting the discrepancies. As such, the NRC inspection team could not find sufficient objective evidence to support the results of Mistras' 10 CFR Part 21 evaluation. This issue is cited as Apparent Violation (AV) 99902109/2023-201-01.

Section 5.3 of Mistras' procedure, 100-QC-017, Revision 5, states, in part, that "The Quality Assurance Director, in conjunction with Purchasers or Affected Licensees representatives, shall evaluate the...deficiency and determine if it could create a substantial safety hazard..." However, as of March 10, 2023, Mistras failed to notify all affected NRC Licensees of a deviation related to failure to secure regular calibration by the OEM or other approved source for the AE systems used to perform AE inspections of reactor head and internals lift rigs at multiple NRC Licensee facilities. This issue is cited as AV 99902109/2023-201-02.

Mistras created CAR-100-2023.03.09 (525) to address these issues.

c. Conclusion

The NRC inspection team identified two AVs (99902109/2023-201-01 and 99902109/2023-201-02) associated with Mistras' failure to implement the regulatory requirements of 10 CFR Part 21. AV 99902109/2023-201-01 cites Mistras for failing to have adequate procedures to implement the requirements of 10 CFR 21.21(a)(1) and 10 CFR 21.21(d), which resulted in an inadequate Part 21 evaluation of the deviation related to Mistras' failure to secure annual calibration of the AE systems used to perform AE inspections of reactor head and internals lift rigs at multiple NRC licensee facilities by the OEM or other approved source. AV 99902109/2023-201-02 cites Mistras for failing to contact all affected Licensees when performing the 10 Part 21 evaluation as required by Mistras' written procedure (See Enclosures 1).

2. Organization

a. Inspection Scope

The NRC inspection team reviewed Mistras' policies and implementing procedures that govern the establishment and execution of Mistras' quality assurance program to verify compliance with the requirements of Criterion I, "Organization," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." The NRC reviewed the organizational structure and functional relationships of Mistras as described in the Mistras 100-QAP-001, Quality Manual, Revision 10. The NRC inspection team verified that the organizational description addresses the organizational structure, functional responsibilities, level of authority, and interfaces among different parts of the organization. The NRC inspection team also reviewed qualifications, responsibilities, and duties of personnel performing activities affecting quality. The NRC inspection team reviewed a sample of documents, reports, job travelers, and procedures to verify that that persons and organizations performing quality assurance functions report to a management level so that the required authority and organization freedom, including sufficient independence from cost and schedule when opposed to safety considerations, are provided.

Additionally, the NRC inspection team discussed Mistras' quality assurance (QA) program and organizational structure with Mistras' 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

The NRC inspection team reviewed Mistras' quality assurance procedures and noted the following:

Mistras' QA Program Manual, 100-QAP-001, "Quality Manual," Revision 10 which included the following:

- Section 5.3.3 of 100-QAP-001 defines the authority of responsibility of the QA Director and stated the QA Director is independent from cost or schedule considerations.
- Section 5.3.7 of 100-QAP-001 defines the authority of responsibility of the Quality Manager which states, *"The Quality Managers have the authority and responsibility to...identify problems in [Quality Assurance Program (QAP)] compliance; initiate, recommend, and provide solutions to QAP compliance problems through designated channels...The Quality Managers are independent from cost or schedule considerations. The Quality Managers have the organizational freedom and unrestricted access to management to resolve quality issues."*
- Section 5.3.8 of QAP-100-001, states *"The individuals responsible for establishing and implementing this QAP may delegate any or all of the work to others but retain responsibility."* Section 8.3.5 of 100-QAP-001 states *"Inspection for acceptance shall be performed by qualified persons other than those who performed or directly supervised the work being inspected."*

Mistras' procedure, 100-QC-006, "Contract Review and Project Planning" included the following:

- Section 7.1 requires that the Job Traveler contain the Quality Manager/Level 3 signature.
- Section 7.2 states, in part, that *"Upon completion of the work, the inspection reports shall be reviewed to verify that work was done as prescribed in the job traveler in accordance with 100-QC-007. This review will be evidenced by signature and date in [the] project close-out section of the job traveler."*

Mistras' procedure, 100-QC-007, "Project Execution," Revision 2, Section 4.1 defines the responsibility of Quality Manager, which includes overseeing project quality.

The NRC inspection team assessed Mistras' procedures and determined that Mistras failed to ensure that its QA organization has adequate authority and span of control to assure QA functions are adequately performed by individuals with organizational freedom, including sufficient independence from cost and schedule, as defined in Mistras' Quality Manual 100-

QAP-001, Revision 10. Specifically, the Mistras' Quality Manager: (1) delegated QA functions to individuals within Mistras that do not have sufficient independence from cost and schedule to perform QA functions, and (2) failed to retain responsibility of the QA functions, as required by Section 5.3.8 of 100-QAP-001. Examples include:

- Mistras failed to ensure reports for AE inspection reactor head and internals lift rigs at nuclear power plants were reviewed by individuals who did not perform or supervise the AE inspections contrary to the requirements in Section 8.3.5 of Mistras' QA Manual, 100-QAP-001. Further, the Quality Manager did not perform any verifications of these inspection reports to confirm that activities affecting the safety-related functions (e.g., the AE inspections) had been correctly performed, as required by 100-QC-007, Section 4.1.
- Mistras failed to ensure that the Quality Manager conducted adequate oversight of project quality for nondestructive examination services performed at NRC licensee facilities, as required by 100-QC-007, Section 4.1. This included omission of Quality Manager/Level 3 signatures on several job travelers for radiographic examination services at nuclear power plants, as required by 100-QC-006, to provide evidence that the inspection reports for these radiographic examination services were reviewed to verify that work was done as prescribed in the job traveler.

These issues are cited as Nonconformance 99902109/2023-201-03. Mistras created CAR-100-2023-03.09 (530) to address this issue.

c. Conclusion

The NRC inspection team issued Nonconformance 99902109/2023-201-03 in association with Mistras' failure to implement the regulatory requirements in Criterion I of Appendix B to 10 CFR Part 50. Nonconformance 99902109/2023-201-03 cites Mistras for failing to ensure that its QA organization has adequate authority and span of control to assure QA functions are adequately performed by individuals with organizational freedom, including sufficient independence from cost and schedule (See Enclosure 2).

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

a. Inspection Scope

The NRC inspection team reviewed Mistras' policies and implementing procedures that govern the implementation of its control of nonconforming parts, materials, 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, respectively. The NRC inspection team verified that Mistras' 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, or "use as-is." The NRC inspection team confirmed that the nonconformance process provides a link to the 10 CFR Part 21 program.

The NRC inspection team observed Mistras' shop floor operations and verified that nonconforming materials, parts or components were properly identified, marked, and segregated, when practical, to ensure that they were not reintroduced into the production processes.

The NRC inspection team also reviewed a sample of corrective action reports (CARs) to verify: (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 correction actions; and (5) the actions taken to verify timely and effective implementation of the corrective actions. In addition, the NRC inspection team confirmed that the corrective action process provides a link to the 10 CFR Part 21 program.

Additionally, the NRC inspection team discussed the nonconformance and corrective action program with Mistras' 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 CAR-594-2021.07.20, the NRC inspection team requested that Mistras provide information to validate the extent of condition evaluation documented in CAR-594-2021.07.20. Specifically, the NRC inspection team requested Mistras explain the process used to identify the licensees, nuclear power plant sites, and plant equipment that were affected by Mistras' failure to secure regular calibration by the OEM or other approved source for the AE systems used to perform AE inspections of reactor head and internals lift rigs at licensee facilities. Mistras personnel stated that the evaluation was performed based on the understanding that Mistras only performed AE inspection of reactor head and internals lift rigs at nuclear power plants. However, the NRC inspection observed that in two of the AE inspection reports sampled, Mistras stated it had performed reactor pressure vessel monitoring, primary pipework monitoring, and leak location in fuel pools, valves and balance-of-plant pipework at various nuclear power plants. As such, the NRC inspection team found that Mistras personnel did not provide objective evidence that a full extent of condition evaluation had been performed. Mistras created CAR 100-2023.03.09 (525) to reperform the extent of condition evaluation.

The NRC inspection team found this issue to be minor because the inadequate extent of condition evaluation related to the AE system calibration issues appear isolated and does not extend to other CARs sampled.

c. Conclusion

With the exception of the minor issue stated above, the NRC inspection team concluded that Mistras is implementing its nonconforming parts, materials, or components and corrective action programs in accordance with the regulatory requirements of Criterion XV and Criterion XVI of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team determined that Mistras is adequately implementing its policies and procedures associated with the control of nonconforming parts, materials, or components and corrective actions program. No findings of significance were identified.

4. Commercial-Grade Dedication

a. Inspection Scope

The NRC inspection team reviewed Mistras' policies and implementing procedures that govern the implementation of its commercial-grade dedication (CGD) program to verify

compliance with the regulatory requirements of Criterion III, "Design Control," and Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed Mistras' program for the dedication of commercial-grade items for use in safety-related applications to verify its compliance with the applicable regulatory requirements. This assessment included a review of the policies and procedures governing the implementation CGD activities. The NRC inspection team reviewed a sample of CGD packages related to the dedication of commercial services and verified that Mistras' effectively implemented its CGD program. Specifically, the NRC inspection team verified that Mistras' identification of critical characteristics, acceptance criteria, and verification methods for each critical characteristic were adequate for the select sample of CGD packages reviewed.

The NRC inspection team also discussed the CGD programs with Mistras' 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 Mistras is implementing its CGD 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, the NRC inspection team determined that Mistras is adequately implementing its policies and procedures associated with the CGD program. No findings of significance were identified.

5. Control of Special Processes

a. Inspection Scope

The NRC inspection team reviewed Mistras' policies and procedures that govern the implementation of its control of special processes program to verify compliance with the regulatory requirements of Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50, and with the requirements of Section V, "Nondestructive Examination," of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code and American Society for Nondestructive Testing (ASNT) SNT-TC-1A, "ASME B&PV Code, Personnel Qualification and Certification in Nondestructive Testing."

The NRC inspection team observed a demonstration for the verification of the AE equipment per 594-AET-001, "Work Instruction for Verification of Acoustic Emission System," which included system set-up and alignment, test input verification, and pencil lead break verification. The NRC inspection team reviewed a sample of non-destructive examination (NDE) records for: (1) digital radiographic examination Direct Radiographic (DR) for a Holtec International Multi-Purpose Canisters; (2) radiographic examination services on various safety-related pipes for Public Service Electric and Gas Company, and (3) Radiographic examination services on Unit 2 torus permanent drain installation for the Constellation Peach Bottom Atomic Power Station. The NRC inspection team verified that the Work Instructions

and associated Qualification Records contained the applicable NDE data in accordance with the requirements of Section V of the ASME B&PV Code and Mistras' procedures. The NRC inspection team reviewed a sample of procedures and test reports associated with visual examination and radiographic testing. The NRC inspection team also reviewed a sample of NDE qualification and training records and confirmed that welders had completed the required training and had maintained their qualifications in accordance with Mistras requirements. For a sample of training and qualification records for NDE personnel, the NRC inspection team confirmed that they were qualified in accordance with the requirements of ASNT SNT-TC-1A and Mistras' requirements.

The NRC inspection team also discussed the control of special processes program with Mistras' 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 job travelers for radiographic examination services on various safety-related pipes for Public Service Electric and Gas Company, and the Unit 2 torus permanent drain installation for Constellation Peach Bottom Atomic Power Station, the NRC inspection team observed that signatures for Quality Manager/Level 3 were omitted contrary to "Contract Review and Project Planning" procedure, 100-QC-006, Revision 6.1. This issue is documented above in Section 2.b of this inspection report.

c. Conclusion

With the exception of the issue documented in Section 2.b of this inspection report, the NRC inspection team concluded that Mistras is implementing its program for control of special processes in accordance with the regulatory requirements of Criterion IX of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed and activities observed, the NRC inspection team determined that Mistras is adequately implementing its policies and procedures associated with the control of special processes. No findings of significance were identified.

6. Control of Measuring and Test Equipment

a. Inspection Scope

The NRC inspection team reviewed Mistras' policies and implementing procedures that govern the implementation of its measuring and test equipment (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 reviewed M&TE on the shop floor as well as reviewed the records for selected M&TE to ensure appropriate calibration stickers and current calibration dates, including the calibration due date. 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 were calibrated at frequencies and using procedures traceable to equipment manuals or industry standards.

The NRC inspection team discussed the control of M&TE with Mistras' 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 Mistras 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, the NRC inspection team also determined that Mistras is implementing its policies and procedures associated with the M&TE program. No findings of significance were identified.

7. Entrance and Exit Meetings

On March 10, 2023, the NRC inspection team presented the inspection scope during an entrance meeting with Mr. Donald Smith, Mistras Group Quality Assurance Director, and other members of Mistras management and technical staff. On March 10, 2023, the NRC inspection team presented the inspection results to Mr. Smith and other members of Mistras management and technical staff. On April 19, 2023, the NRC inspection team conducted an additional exit meeting with Mr. Smith and other members of Mistras management and Mistras' outside counsel. 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

Name	Position	Affiliation	Entrance	Exit	Interviewed
Donald Smith	Quality Assurance Director	Mistras Group	X	X	X
Rick Wick	Quality Assurance Manager	Mistras Services	X	X	X
Adam Bingel	Corporate Quality Manager	Mistras Group	X	X	X
Jimmy Ponce	General Manager	Mistras Services	X	X	X
Steve Day	Level III NDE Technician	Mistras Services			X
Chris Smith	Senior Group VP of Regulator Compliance	Mistras Group		X*	
Collin Eckard	Northeast Regional Manager	Mistras Group		X*	
John Smith	Senior Group VP of Operations	Mistras Group		X*	
Andy Kriha	Outside Counsel			X*	
Deanna Zhang	Inspector	NRC	X	X	
Greg Galletti	Inspector	NRC	X	X	
Dong Park	Inspector	NRC	X	X	

Michael Fitzgerald	Inspector	NRC	X	X	
Aaron Armstrong	Acting Branch Chief	NRC		X*	
Kerri Kavanagh	Branch Chief	NRC	X*	X*	

* - Attended virtually

2. INSPECTION PROCEDURES USED:

- Inspection Procedure (IP) 43003, “Reactive Inspections of Nuclear Vendors,” dated April 10, 2020
- IP 43004, “Inspection of Commercial-Grade Dedication Programs,” dated February 10, 2023
- IP 36100, “Inspection of 10 CFR Part 21 and Programs for Reporting of Defects and Noncompliance,” dated February 10, 2023

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
99902109/2023-201-01	Opened	Notice of Violation (NOV)	10 CFR 21.21, paragraphs (a) and (d)
99902109/2023-201-02	Opened	NOV	10 CFR 21.21(b)
99902109/2023-201-03	Opened	Notice of Nonconformance	Criterion I of Appendix B

4. DOCUMENTS REVIEWED

Quality Assurance and Work Procedures

- 100-QAP-001, “Quality Manual,” Revision 10, dated October 23, 2019
- 100-QC-001, “Document Control,” Revision 6, dated February 1, 2018
- 100-QC-002, “Quality Records,” Revision 4, dated April 16, 2020
- 100-QC-003, “Managing Change,” Revision 2, dated May 19, 2020
- 100-QC-004, “Management Review,” Revision 4, dated February 1, 2018
- 100-QC-004.1, “Customer Feedback,” Revision 5, dated February 10, 2023
- 100-QC-004.2, “Process Analysis and Improvement,” Revision 6.1, dated March 10, 2020
- 100-QC-005, “Human Resources and Training,” Revision 6, dated January 5, 2023
- 100-QC-005.2, “Qualification and Certification of Nondestructive Test Personnel,” Revision 19.2, dated August 23, 2022
- 100-QC-005.2A, “Qualification and Certification of Ultrasonic and Visual Testing Personnel in accordance with ASME Section XI,” Revision 3, dated January 19, 2021
- 100-QC-005.5, “Personnel Qualification and Certification Process,” Revision 4, dated August 5, 2022
- 100-QC-006, “Contract Review,” Revision 6.1, dated February 8, 2023
- 100-QC-006.1, “Managing Operational Risk,” Revision 2, dated January 5, 2023
- 100-QC-006.2, “Project Management,” Revision 2, dated February 1, 2018
- 100-QC-006.2A, “Project Management – Pipeline Construction,” Revision 0, dated June 14, 2017
- 100-QC-007, “Project Execution,” Revision 2, dated January 5, 2023
- 100-QC-008, “Procurement,” Revision 7, dated July 30, 2019
- 100-QC-008.0, “Supplier Quality Requirements,” Revision 8.1, dated January 5, 2023

- 100-QC-008.1, "Supplier Assessment and Approval," Revision 6.1, dated January 5, 2023
- 100-QC-008.3, "Commercial Grade Dedication," Revision 6.1, dated August 19, 2022
- 100-QC-008.4, "Receipt Inspection," Revision 5, dated January 5, 2023
- 100-QC-009, "Control of Special Processes," Revision 3, dated February 12, 2018
- 100-QC-010, "Identification, Shipping, Handling, Storage, and Preservation," Revision 4.1, dated January 28, 2021
- 100-QC-013, "Control of Measuring and Test Equipment," Revision 4.1, dated March 9, 2020
- 100-QC-014, "Internal Audits," Revision 9.1, dated February 28, 2023
- 100-QC-014.1, "Training, Qualification and Certification of Auditors," Revision 3, dated February 1, 2018
- 100-QC-017, "Control of Nonconforming Items," Revision 5, dated August 26, 2022
- 100-QC-017.1, "Reporting of Defects and Noncompliance in Accordance with 10 CFR Part 21 and 10 CFR 50.55(e)," Revision 5, dated May 27, 2021
- 100-QC-019, "Corrective Action," Revision 6, dated February 8, 2023
- Visual Examination Procedure for Practical Examinations VT-1, 2, & 3 in accordance with ASME, Section XI and ASME Section V, Article 9
- Visual Examination Procedure in accordance with ASME, Section XI and ASME Section V, Article 9, dated October 1, 2021
- 594-AET-001 Work Instruction for Verification of Acoustic Emission System, Revision 3, dated January 17, 2023
- 594-AELR-002, "Acoustic Emission Inspection of Head Lifting Rig and Internals Lifting Rig," Revision 5, dated February 6, 2023
- 100-LT-001, "Vacuum Box Leak Testing in accordance with ASME Section V, Article 10," Revision 1, dated August 17, 2016
- 100-MT-001, "Magnetic Particle Examination in accordance with ASME Section V, Article 7," Revision 20, dated December 15, 2021
- 100-PT-001, "Liquid Penetrant Examination in accordance with ASME Section V, Article 6," Revision 22, dated December 15, 2021
- 100-RT-001, "Radiographic Examination in accordance with ASME Section V, Article 2," Revision 20, dated March 8, 2022
- 100-RT-002, "Computed Radiographic Examination in accordance with ASME Section V, Article 2," Revision 13, dated January 10, 2022
- 100-RT-004, "Determining Wall Thickness Utilizing Radiographic Examination (Profile Radiography)," Revision 3, dated November 3, 2017
- 100-RT-018, "Digital Radiographic Examination in accordance with ASME Section V, Article 2," Revision 0, dated February 13, 2019
- 100-RT-022, "Determining Wall Thickness Utilizing Digital Radiography," Revision 0.1, dated December 31, 2019
- 100-RT-026, "Radiographic Film Digitization, Acquisition, Display, Interpretation, and Storage of Digital Images for Nuclear Applications," Revision 0, dated August 4, 2021
- 594-RT-001.2, "Digital Radiographic Examination of Holtec's MPC in accordance with ASME Section V, Article 2, App. IX," Revision 1, dated December 4, 2019
- 100-UT-001, "Ultrasonic Examination of Welds in accordance with ASME Section V, Article 4 (Welds)," Revision 21.2, dated August 10, 2022

- 100-UT-002, “Ultrasonic Examination of Materials in accordance with ASME Section V, Article 5”, Revision 8, dated December 17, 2021
- 100-UT-002I, “Ultrasonic Examination of Anchor Bolts and Studs with a diameter of 3/4in to 2in,” Revision 1, dated August 2, 2019
- 100-UT-002H, “Ultrasonic Examination of Forged Bolts and Studs 2in and Greater in Diameter,” Revision 2, dated August 2, 2019
- 100-UT-003, “Digital Ultrasonic Thickness Measurements in accordance with ASME Section V, SE-797,” Revision 13, dated March 3, 2022
- 100-UT-020, “Ultrasonic Phased Array Examination of Piping Welds in accordance with ASME Section V, Article 4,” Revision 6.1, dated August 10, 2022
- 100-VT-001, “Visual Examination in accordance with ASME Section V, Article 9,” Revision 9, dated June 24, 2022

Commercial Grade Dedication (CGD) Packages

- CGD Package for Services, dated February 21, 2020 (PO 200580)
- CGD Package for Services, dated March 2, 2023 (PO 284646)
- CGD Package for Services, dated June 6, 2022 (PO 261641)
- CGD Package for Services, dated May 9, 2022(PO 255814)
- CGD Package for Services, dated March 2, 2023 (PO 284646)

Purchase Orders (PO)

- 741506 Revision 0, dated January 11, 2023
- 02435418 Revision 0, dated December 28, 2021
- 02202684 (no revision of date information)
- 70379487 Revision 0, dated January 21, 2021
- 02431232 Revision 0, dated September 3, 2021
- 5000048277 Version 1, dated March 6, 2023
- 02448697 Revision 0, dated November 15, 2022
- 5000044258 Revision 0, dated August 9, 2022
- 00579955 Release 54, dated May 12, 2022
- 00579955 Release 53, dated May 12, 2022
- 55140546 Revision 0, dated May 13, 2021
- 00579955 Release 51, dated December 13, 2021
- 5000039393 Revision 0, dated November 23, 2021
- 00579955 Release 49, dated June 2, 2021
- 5000035188 Revision 0, April 20, 2021
- 00579955 Release 46, dated January 28, 2021
- 5000031899 Revision 0, dated December 11, 2020
- 5000032330 Revision 0, dated March 9, 2021

Test Reports

- Acoustic Emission Inspection of Head Lifting Rig and Internals Lifting Rig – Beaver Valley

- Nuclear Power Stations Units 1 and 2, dated January 23, 2017
- Acoustic Emission Inspection of Head Lifting Rig and Internals Lifting Rig – Oconee Nuclear Station Units 1, 2, and 3, dated August 1, 2017
- Acoustic Emission Inspection of Head Lifting Rig and Internals Lifting Rig – North Anna Power Station Units 1 and 2, dated February 2, 2018
- Acoustic Emission Inspection of Head Lifting Rig and Internals Lifting Rig – DC Cook Nuclear Plant Unit 1 and 2, dated November 14, 2018
- Acoustic Emission Inspection of Head Lifting Rig, Internals Lifting Rig, and Load Cell Linkage – Point Beach Nuclear Generating Station, dated December 20, 2021
- Acoustic Emission Inspection of Head Lifting Rig, Internals Lifting Rig, and Load Cell Linkage – Turkey Point Nuclear Generating Station, dated November 6, 2021
- Mistras Radiographic Report-DR for Holtec International dated January 10, 2020

Safety Related Job Packages

- CD11366126
- CD11224918
- CD11112867

Measuring and Test Equipment Documents

- Calibration certificate for E 1054010066, Infrared Thermometer
- Calibration certificate for SN 030294, Densitometers – shop
- Calibration certificate for SN 5810393307, Portable Leak Detector
- Calibration certificate for SN 82204581220, PAC FieldCal
- Calibration certificate for SN 6330647112, PAC Micro-II

Nonconformance Reports (NCRs)

- NCR-594-2021.06.14
- NCR-594-2021.07.26
- NCR-594-2021.07.08
- NCR-594-2021.07.02-01

Corrective Action Reports (CARs) Reviewed During the NRC Inspection

- CAR-594-2021.06.10 (310)
- CAR-594-2021.06.10 (308)
- CAR-100-2021.09.08 (397)
- CAR-100-2021.07.20 (324)
- CAR-594-2021.06.10 (313)
- CAR-594-2021.07.20 (323)
- CAR-594-2021.06.10 (311)
- CAR-594-2021.06.10 (312)
- CAR-594-2021.06.10 (313)
- CAR-100-2021.09.08 (397)
- CAR-100-2021.07.20 (324)

- CAR-100-2021.07.20 (323)

CARs Drafted as a Result of the NRC Inspection

- CAR-100-2023.03.08 (397)
- CAR-100-2023.03.09 (530)
- CAR-100-2023.03.09 (529)
- CAR-100-2023.03.09 (528)
- CAR-100-2023.03.09 (527)
- CAR-100-2023.03.09 (525)

Training Records

- Michael E. Boynton
- Jack Howarth
- David P. Millhausen
- Richard Wick
- Adam Bingel
- Stephen Day