



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

December 15, 2022

Mr. David Colegrove
Manager of Quality Assurance
Reuter-Stokes, LLC
8499 Darrow Road
Twinsburg, OH 44087

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF REUTER-STOKES, LLC NO. 99901454/2022-201, AND NOTICE OF NONCONFORMANCE

Dear Mr. Colegrove:

From October 31 through November 4, 2022, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at the Reuter-Stokes, LLC's facility (hereafter referred to as Reuter-Stokes) in Twinsburg, OH. The purpose of the limited scope inspection was to assess Reuter-Stokes' compliance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and selected portions of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

This technically focused inspection specifically evaluated Reuter-Stokes' implementation of quality activities associated with the design, manufacture and servicing of nuclear instrumentation and detectors. Reuter-Stokes is the primary supplier of Local Power Range Monitoring (LPRM) system in-core probes, dry tubes, and area radiation detectors for GE Hitachi and the GE operating fleet of boiling water reactors. The enclosed report presents the results of this inspection. This NRC inspection report does not constitute NRC endorsement of your overall quality assurance (QA) or 10 CFR Part 21 programs.

Based on the results of this inspection, the NRC inspection team determined 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 Reuter-Stokes was not fully implementing its QA program in the areas of Criterion VIII, "Identification and Control of Materials, Parts, and Components," of Appendix B to 10 CFR Part 50. 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), Reuter-Stokes 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 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 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 Safeguards Information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

Sincerely,



Zhang, Deanna signing on behalf
of Kavanagh, Kerri

on 12/15/22

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

Docket No.: 99901454

EPID No.: I-2022-201-0038

Enclosures:

1. Notice of Nonconformance
2. Inspection Report No. 99901454/2022-201
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF
REUTER-STOKES, LLC NO. 99901454/2022-201, AND NOTICE OF
NONCONFORMANCE Dated: December 15, 2022

DISTRIBUTION:

ABuford
RFelts, NRR
CMiller, NRR
ASakadales, NRR
ConE_Resource
NRR_DRO_IQVB Distribution
david.colegrove@BakerHughes.com

ADAMS Accession No.: ML22346A151

NRR-106

OFFICE	NRR/DRO/IQVB	NRR/DRO/IQVB	NRR/DRO/IQVB
NAME	DPark	AKeim	FVega
DATE	12/12/2022	12/13/2022	12/13/2022
OFFICE	NRR/DRO/IQVB	NRR/DRO/IRAB	NRR/DRO/IQVB
NAME	YLaw	BHughes	KKavanagh
DATE	12/13/2022	12/14/2022	12/15/2022

OFFICIAL RECORD COPY

NOTICE OF NONCONFORMANCE

Reuter-Stokes, LLC
8499 Darrow Road
Twinsburg, OH 44087

Docket No. 99901454
Report No. 2022-201

Based on the results of a U.S. Nuclear Regulatory Commission (NRC) inspection conducted at the Reuter-Stokes, LLC's (hereafter referred to as Reuter-Stokes) facility in Twinsburg, OH, from October 31 through November 4, 2022, Reuter-Stokes did not conduct certain activities in accordance with NRC requirements that were contractually imposed upon Reuter-Stokes by its customers or NRC licensees:

- A. Criterion VIII, "Identification and Control of Materials, Parts, and Components," 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 that "Measures shall be established for the identification and control of materials, parts, and components, including partially fabricated assemblies. These measures shall assure that identification of the item is maintained by heat number, part number, serial number, or other appropriate means, either on the item or on records traceable to the item, as required throughout fabrication, erection, installation, and use of the item. These identifications and control measures shall be designed to prevent the use of incorrect or defective material, parts, and components."

Reuter-Stokes' Quality Assurance Manual Section 9.6, "Identification Maintenance," states, "Personnel who store, handle or process material or product are responsible for maintaining identification/markings while the material or product is under their control, including replacement of markings and identification records due to damage during handling or aging, and protection of identifications on items subject to excessive deterioration due to environmental exposure."

Contrary to the above, as of November 17, 2022, Reuter-Stokes failed to establish identification and control measures to prevent the use of incorrect material in safety-related components. Specifically, Reuter-Stokes failed to identify and use the correct spool of solder wire during a sensor & converter board assembly process. The correct solder material identified in the bill of material, P/N 213A7086P002, specifies 63% Sn (tin) and 37% Pb (lead), however, after X-ray fluorescence (XRF) analysis, the affected spool indicated a composition of approximately 99% Sn which may result in short circuits caused by electrically conductive crystalline structures of tin.

This issue has been identified as Nonconformance 99901454/2022-201-01.

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 and the results achieved; (3) the corrective steps that will be 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 Public Document Room or from the NRC's Agencywide Documents Access and Management System, which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>, to the extent possible, it should not include any personal privacy, proprietary, or Safeguards Information (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 Safeguards Information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

Dated this 15th day of December 2022.

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

Docket No.: 99901454

Report No.: 99901454/2022-201

Vendor: Reuter-Stokes, LLC
8499 Darrow Road
Twinsburg, OH 44087

Vendor Contact: Mr. David Colegrove
Manager of Quality Assurance
Email: david.colegrove@BakerHughes.com
Office: (330) 963-2495

Nuclear Industry Activity: Reuter-Stokes, LLC (hereafter referred to as Reuter-Stokes) is a manufacturer of nuclear instrumentation and detectors. Reuter-Stokes is the primary supplier of Local Power Range Monitoring (LPRM) system in-core probes, dry tubes, and area radiation detectors for General Electric (GE) Hitachi and the GE operating fleet of boiling water reactors.

Inspection Dates: October 31 - November 4, 2022

Inspectors:	Dong Park	NRR/DRO/IQVB	Team Leader
	Andrea Keim	NRR/DRO/IQVB	
	Frankie Vega	NRR/DRO/IQVB	
	Yiu Law	NRR/DRO/IQVB	Remote

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

EXECUTIVE SUMMARY

Reuter-Stokes, LLC
99901454/2022-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a vendor inspection at the Reuter-Stokes, LLC's (hereafter referred to as Reuter-Stokes) facility in Twinsburg, OH, 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." In addition, the NRC inspection also verified that Reuter-Stokes implemented a program under 10 CFR Part 21, "Reporting of Defects and Noncompliance," that met the NRC's regulatory requirements. This was the second NRC inspection of Reuter-Stokes' facility in Twinsburg, OH.

This technically-focused inspection specifically evaluated Reuter-Stokes' implementation of quality activities associated with the design, fabrication, inspection, and testing of local power range monitoring (LPRM) system in-core probes, dry tubes, and area radiation detectors. Specific activities observed by the NRC inspection team included:

- Soldering of a connector to the power range detector assembly
- Automatic gas tungsten arc welding of the seal to gland for the LPRM
- Radiographic examination of an automatic gas tungsten arc weld
- Assembly and manufacture of a sensor and converter component
- Calibration of a digital caliper
- Walk-through of a hydrostatic test
- Walk-through of the receipt inspection area

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 the following inspection procedures (IP): IP 43002, "Routine Inspections of Nuclear Vendors," dated April 5, 2022; IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated April 5, 2022; 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 notice of nonconformances described below, the NRC inspection team concluded that Reuter-Stokes' QA policies and procedures comply with the applicable requirements of Appendix B to 10 CFR Part 50 and 10 CFR Part 21, and that Reuter-Stokes' personnel are implementing these policies and procedures effectively. The results of this inspection are summarized below.

Identification and Control of Materials, Parts, and Components (Material Traceability)

The NRC inspection team reviewed Reuter-Stokes' policies and procedures that govern the implementation of its material traceability program to verify compliance with the regulatory requirements of Criterion VIII, "Identification and Control of Materials, Parts, and Components,"

of Appendix B to 10 CFR Part 50. The NRC inspection team performed a walk-through of Reuter-Stokes' receipt inspection area and verified that raw materials, parts, and instruments used for safety-related nuclear work were marked with identification markings to maintain traceability of the materials during the fabrication process. The NRC inspection team verified the material was traceable to Reuter-Stokes' purchase orders (POs).

The NRC inspection team performed a walk-through of the Reuter-Stokes' manufacturing area and observed an unidentified spool of solder being used during the assembly and manufacture of a sensor and converter component. The NRC inspection team issued Nonconformance 99901454/2022-201-01 in association with Reuter-Stokes' failure to implement the regulatory requirements of Criterion VIII of Appendix B to 10 CFR Part 50. Nonconformance 99901454/2022-201-01 cites Reuter-Stokes for failure to establish identification and control measures to prevent the use of incorrect material in safety-related components. Specifically, Reuter-Stokes failed to identify and use the correct spool of solder wire during a sensor & converter board assembly process. The correct solder material identified in the bill of material, P/N 213A7086P002, specifies 63% Sn (Tin), 37% Pb (Lead), however, after X-ray fluorescence (XRF) analysis, the affected spool indicated a composition of approximately 99% Sn which may result in short circuits caused by electrically conductive crystalline structures of tin.

Reuter-Stokes initiated Corrective Action Report (CAR) No. 22-033 to address this issue.

10 CFR Part 21 Program

The NRC inspection team reviewed Reuter-Stokes' 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 Reuter-Stokes' 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 Reuter-Stokes. No findings of significance were identified.

Design Control

The NRC inspection team reviewed Reuter-Stokes' policies and implementing procedures that govern the implementation of its design control program to verify compliance with the requirements of Criterion III, "Design Control," of Appendix B to 10 CFR Part 50. The NRC inspection team verified that the design and procurement specifications were properly translated into Reuter-Stokes' design drawings, job travelers, procedures, data sheets, analyses, and engineering calculations, as applicable. The NRC inspection team also reviewed a sample of engineering change notices and confirmed design changes were adequately controlled. No findings of significance were identified.

Commercial-Grade Dedication

The NRC inspection team reviewed Reuter-Stokes' policies and implementing procedures that govern the implementation of its commercial-grade dedication (CGD) program to verify compliance with the requirements of Criterion III and Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50. The NRC inspection team reviewed the documentation associated with the CGD of the components used in safety related assemblies. The documentation included the technical evaluations used to identify the critical characteristics and acceptance criteria to verify that Reuter Stokes effectively implemented its CGD process. No findings of significance were identified.

Procurement Document Control and Supplier Oversight

The NRC inspection team reviewed Reuter Stokes' 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 of Appendix B to 10 CFR Part 50. The NRC inspection team selected a sample of suppliers to review the methodology for conducting and documenting audits and the review of third-party audits. The NRC inspection team identified three minor issues associated with Reuter Stokes' implementation of its supplier oversight program.

Reuter-Stokes initiated CAR Nos. 22-034, 22-035 and 22-036 to address these issues.

Control of Special Processes

The NRC inspection team reviewed Reuter-Stokes' policies and implementing procedures that govern the implementation of its special processes program to verify compliance with the requirements of Criterion IX, "Control of Special Processes," of Appendix B to 10 CFR Part 50. The NRC inspection team observed the automatic gas tungsten arc welding of the seal to gland for the LPRM, and the radiographic examination of the automatic gas tungsten arc weld associated with PO No. 31621792. In addition, the NRC inspection team reviewed Reuter-Stokes' certification and qualification records of welding and nondestructive testing (NDT) personnel and confirmed they were qualified in accordance with regulatory requirements. No findings of significance were identified.

Test Control

The NRC inspection team reviewed Reuter-Stokes' 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 reviewed documentation for one safety-related hydrostatic test performed during the week of the NRC inspection and confirmed the testing was performed in accordance with Reuter-Stokes' test procedures using calibrated measuring and test equipment (M&TE) and was performed by qualified individuals. No findings of significance were identified.

Control of Measuring and Test Equipment

The NRC inspection team reviewed Reuter-Stokes' 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 the 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.

Nonconforming Material, Parts, or Components and Corrective Action

The NRC inspection team reviewed Reuter-Stokes' policies and procedures that govern the implementation of its nonconformance control 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 verified that the procedures contained sufficient guidance for evaluating nonconforming conditions, ensuring that conditions are evaluated for possible corrective action and checking for 10 CFR Part 21 applicability. The NRC inspection team reviewed a sample of nonconformance reports (NCRs) and CARs to verify compliance with regulatory requirements and adherence to Reuter-Stokes' procedures. No findings of significance were identified.

REPORT DETAILS

1. Identification and Control of Materials, Parts, and Components (Material Traceability)

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' policies and implementing procedures that govern the implementation of its material traceability program to verify compliance with the regulatory requirements of Criterion VIII, "Identification and Control of Materials, Parts, and Components," 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 witnessed on-going shop activities related to product receipt and acceptance. The NRC inspection team also reviewed in-process activities in accordance with shop work orders and reviewed both material staging areas and nonconforming material segregation areas to verify material identification control methods. The NRC inspection team reviewed a sample of in-process and completed discrete job router documentation to confirm material identification was adequately documented in accordance with procedures governing those activities.

The NRC inspection team discussed material identification methods with quality control inspectors, quality assurance personnel and confirmed understanding of identification and control of materials. The attachment to this inspection report lists the documents reviewed and personnel interviewed by the NRC inspection team.

b. Observation and Findings

The NRC inspection team verified that Reuter-Stokes adequately performed intake activities including material identification, material certification, and entry into inventory during the walk-through of the receipt inspection area.

The NRC inspection team observed an unidentified spool of solder being used during the assembly and manufacture of a sensor and converter component. The NRC inspection team issued Nonconformance 99901454/2022-201-01 in association with Reuter-Stokes' failure to implement the regulatory requirements of Criterion VIII of Appendix B to 10 CFR Part 50. Nonconformance 99901454/2022-201-01 cites Reuter-Stokes for failure to establish identification and control measures to prevent the use of incorrect material in safety-related components. Specifically, Reuter-Stokes failed to identify and use the correct spool of solder wire during a sensor & converter board assembly process. The correct solder material identified in the bill of material, P/N 213A7086P002, specifies 63% Sn (tin), 37% Pb (lead), however, after X-ray fluorescence (XRF) analysis, the affected spool indicated a composition of approximately 99% Sn.

NRC Information Notice (IN) 2005-25, "Inadvertent Reactor Trip and Partial Safety Injection Actuation due to Tin Whisker," communicates past events and potentially undesired effects of microscopic tin filament that sometimes grow from surfaces of pure tin. IN 2005-25 concludes, "In general, components containing 3% or greater lead

concentration in the solder and/or manufactured with conformal coatings appear to be less susceptible to tin whiskering.”

Reuter-Stokes initiated Corrective Action Report (CAR) No. 22-033 to address this issue.

c. Conclusion

The NRC inspection team issued Nonconformance 99901454/2022-201-01 in association with Reuter-Stokes’ failure to implement the regulatory requirements of Criterion VIII of Appendix B to 10 CFR Part 50. Nonconformance 99901454/2022-201-01 cites Reuter-Stokes for failing to establish identification and control measures to prevent the use of incorrect material in safety-related components.

2. 10 CFR Part 21 Program

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes’ policies and implementing procedures that govern the implementation of its 10 CFR Part 21, “Reporting of Defects and Noncompliance,” 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 Reuter-Stokes’ purchase orders (PO) for 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 Reuter-Stokes’ 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 Reuter-Stokes, the NRC inspection team verified that Reuter-Stokes had effectively implemented the requirements for evaluating deviations and failures to comply. The NRC inspection team verified that the 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 Reuter-Stokes’ 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 Reuter-Stokes 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 Reuter-Stokes is implementing its policies and procedures associated with the 10 CFR Part 21 program. No findings of significance were identified.

3. Design Control

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' policies and implementing procedures that govern the implementation of its design control program to verify compliance with the regulatory requirements of Criterion III, "Design Control," of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50.

The NRC inspection team reviewed a sample of design reports, design specifications, engineering drawings, shop travelers, bill of materials, engineering change notices (ECNs), non-destructive examination (NDE) reports, and nonconformance reports. Specifically, the NRC inspection team reviewed design packages for detector, cable, sensor, and tube assemblies.

The NRC inspection team focused on control of design changes in their review of Reuter Stokes' design control program and guidelines for control of design changes. The NRC inspection team discussed design change control with Reuter-Stokes personnel and reviewed completed design change documentation to verify design change implementation. Original qualification activities for the Reuter-Stokes LPRMs were primarily performed in the mid 1980's. Reuter-Stokes typically used engineering analysis to show that features or design changes are bounded by the original component qualification. Specifically, the inspectors evaluated the disposition of a sample of engineering change notices (ECNs) related to the instructions, procedures, and drawings of LPRMs.

The NRC inspection team verified that Reuter-Stokes' design control process was consistent with the applicable regulatory requirements, and that Reuter-Stokes had correctly translated the design basis into the applicable specifications, drawings, procedures, and instructions. The NRC inspection team verified that Reuter-Stokes' design control process (1) adequately translated technical and quality requirements into procedures and instructions, (2) applied materials conformed to the material specifications, (3) design activities were effectively controlled by documented instructions and procedures, and (4) design changes were accomplished in accordance with the approved procedures.

The NRC inspection team also discussed the design control program with Reuter-Stokes' 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 Reuter-Stokes is implementing its design control program in accordance with the regulatory requirements of Criterion III of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that Reuter-Stokes is implementing its policies

and procedures associated with the design control program. No findings of significance were identified.

4. Commercial-Grade Dedication

a. Inspection Scope

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

The NRC inspection team reviewed Reuter-Stokes' commercial grade dedication (CGD) program and guidelines for establishing suitability for commercial components used in fabrication. The NRC inspection team discussed the CGD process with personnel and reviewed completed CGD documentation to verify implementation. The sample of completed documentation included evaluation of Reuter-Stokes safety function assessment, failure modes and effects analysis, determination of critical characteristics, and designation of methods of acceptance. Specifically, the inspectors evaluated and observed CGD activities supporting the acceptance of parts and components which are used by Reuter-Stokes to process safety-related components.

In addition, the inspectors evaluated the inspections, tests, and supplier surveys associated with a sample of parts. A selection of commercial supplier surveys was also compared with CGD requirements. This evaluation included verification of lead auditor initial qualification and maintenance of proficiency in accordance with Reuter-Stokes program requirements.

The NRC inspection team also discussed the design control and commercial-grade dedication programs with Reuter-Stokes' 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 Reuter-Stokes 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, the NRC inspection team also determined that Reuter-Stokes is implementing its policies and procedures associated with the commercial-grade dedication program. No findings of significance were identified.

5. Procurement Document Control and Supplier Oversight

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' 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 of Appendix B to 10 CFR Part 50.

The NRC inspection team reviewed Reuter-Stokes' approved supplier list (ASL), a sample of POs, supplier audits, job travelers 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, conditions and restrictions imposed to sub suppliers 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 Reuter-Stokes for compliance with the requirements of the POs (2) records were approved by qualified individuals, and (3) the records contained the applicable technical and regulatory information. The NRC inspection team performed a walkdown of the receipt inspection area and discussed the receipt inspection process with Reuter-Stokes' quality control inspector.

The NRC inspection team selected a sample of suppliers from the ASL to review the methodology for conducting and documenting audits to verify adequate evaluation of the suppliers' controls for meeting the applicable requirements of Appendix B to 10 CFR Part 50. For the sample of supplier audits reviewed, the NRC inspection team verified the following: the audit reports included an audit plan; audits were performed according to established frequency; audit report included adequate documented objective evidence of compliance with the applicable requirements; and audit documentation was reviewed by Reuter-Stokes' responsible management.

The NRC inspection team also verified that the supplier audits were performed by qualified auditors and audit findings were documented and resolved in the Reuter-Stokes' and the suppliers' corrective action programs. In addition, the NRC inspection team reviewed a sample of training and qualification records of lead auditors and confirmed that auditing personnel had completed all the required training and had maintained the applicable qualification and certification in accordance with Reuter-Stokes' policies and procedures.

The NRC inspection team also discussed the supplier oversight program with Reuter-Stokes' 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 the ASL, the NRC inspection team noted that multiple suppliers were extended past their triannual audit dates and beyond the 90-day grace period allowance described in the Reuter-Stokes Quality Assurance Manual (QAM). When discussing this issue with the Quality Assurance (QA) manager, it was stated that the

primary reason for not meeting audit due dates was because of COVID restrictions. However, the NRC inspection noted, that the Reuter-Stokes QAM does not have an allowance for extending supplier audit beyond the triennial frequency due to exigent conditions. Reuter-Stokes opened CARs to keep track of these triennial vendor audits that had expired and continue to procure components from some of these suppliers. The NRC inspection staff reviewed these CARs and noted Reuter-Stokes lacked details on how these suppliers were evaluated to ensure these are properly qualified and maintained in the ASL. Specifically, Reuter-Stokes failed to provide objective evidence showing that an evaluation considering the following aspects was performed: verification that the supplier's quality assurance program is still committed to meeting the requirements of 10 CFR 50, Appendix B; evaluation of any significant open issues with the NRC, 10 CFR Part 21 notifications, and any open findings since the previous triennial audits describing impact on the items/services being procured from that supplier.

The NRC inspection team determined this issue to be minor because Reuter-Stokes performed receipt inspection of all components from these suppliers, and the results of these inspections provide reasonable assurance that the suppliers are providing products that meet the applicable requirements. In addition, Reuter-Stokes performed a full scope audit of these suppliers after the audit expiration date and three minor findings were identified. These findings were considered to be programmatic in nature and do not have a negative impact on the scope of supply. Reuter-Stokes initiated CAR report No. 22-035 to address this issue.

According to Section 7.5.1.1 of Reuter-Stokes' QAM, triannual audits shall be supplemented by annual evaluations of the supplier's performance. Additionally, Standard Operating Procedure (SOP) C-5290.23 "QA Audits" states, in part, that "for the nuclear business operations, the Reuter-Stokes Management Audit shall be used to fulfill the annual QA Program audit requirements." However, the requirements of annual evaluations are not well defined in the Reuter-Stokes QAM or SOP-C-5290.23. During the review of external supplier audits, the NRC inspection team was unable to find objective evidence that documents annual evaluations of safety-related suppliers.

It is the NRC's regulatory position that vendors should perform annual evaluations of their suppliers. Specifically, these annual evaluations should take the following considerations into account, where applicable: (a) the review of supplier-furnished documents and records such as certificates of conformance, nonconformance notices, and corrective actions; (b) results of previous source verifications, audits, and receiving inspections; (c) operating experience of identical or similar products furnished by the same supplier and results of audits from other sources (e.g., Nuclear Procurement Issues Corporation audit reports or NRC inspection reports).

The NRC inspection team determined this issue to be minor because Reuter-Stokes performs a review of supplier's nonconformances, as documented in SOP 370 "Supplier Evaluation", as well as receipt inspections upon delivery of all safety related components. The results of these inspections provide reasonable assurance that the suppliers are providing products that meet the applicable requirements. Reuter-Stokes opened CAR 22-034 to address this issue.

During the review of supplier audit reports, the NRC inspection team noted that several minor findings were identified by third party auditors during two previous audits.

According to Reuter-Stokes' QAM Section 7.8.1.3 and SOP C-5290.23 "QA Audits," Reuter-Stokes is required to evaluate any audit findings using the corrective action program, and the QA Manager shall assure that any required corrective action measures have been properly documented and implemented prior to rendering final approval of the supplier. The NRC inspection team found that Reuter-Stokes failed to provide objective evidence demonstrating that Reuter-Stokes independently evaluated audit findings identified by third party auditors in accordance with Reuter-Stokes' QAM and SOP C-5290.23.

During discussion with the Reuter-Stokes' staff, it was stated that checklist titled "Audit Report Checklist" (QAM Exhibit 7-C) had been developed to review audit plans, audit checklists and evaluate and track third party audit findings. However, the checklist had been inconsistently used by Reuter-Stokes and audit findings were issued to suppliers but not adequately documented in accordance with the Reuter-Stokes QAM. The NRC inspection team determined this issue to be minor because the findings identified by third party auditors were determined to be minor, programmatic in nature and do not have a negative impact on the scope of supply. In addition, the NRC inspection staff reviewed a sample of POs and receipt inspection reports for items delivered after these findings were identified and no NCRs were identified, thus providing reasonable assurance that the suppliers are providing products that meet the applicable requirements. Reuter-Stokes opened CAR 22-036 to address this issue.

c. Conclusion

The NRC inspection team concluded that Reuter-Stokes is implementing its supplier oversight program in accordance with the regulatory requirements of Criterion IV and Criterion VII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that Reuter-Stokes is implementing its policies and procedures associated with the supplier oversight program. No findings of significance were identified.

6. Control of Special Processes

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' 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."

The NRC inspection team witnessed the automatic gas tungsten arc welding of the seal to gland for the LPRM. The NRC inspection team verified that; (1) the welder operator was qualified to operate the welding station, (2) the welding procedures were appropriately qualified and contained the required information (e.g., welding parameters, etc.), and (3) the equipment used in the welding stations was within calibration.

The NRC inspection team also witnessed the radiographic examination of the automatic gas tungsten arc weld of the seal to gland for the LPRM. The radiographic examination instrumentation was properly calibrated, and the NRC inspection team verified that the NDE procedures used by Reuter-Stokes provide adequate guidance to perform radiographic examination inspections by qualified personnel. The NRC

inspection team confirmed that the welding and the NDE were performed in accordance with the procedural requirements.

The NRC inspection team also reviewed a sample of welder qualification and training records and confirmed that welders had completed the required training and had maintained their qualifications in accordance with Reuter-Stokes requirements.

The NRC inspection team also discussed the Control of Special Processes program with Reuter-Stokes' management and technical staff. The attachment to this inspection report lists the documents reviewed and personnel interviewed by the NRC inspection team.

b. Observation and Findings

No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that Reuter-Stokes is implementing its Control of Special Processes program in accordance with the regulatory requirements of Criterion IX of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team also determined that Reuter-Stokes is implementing its policies and procedures associated with the control of special processes program. No findings of significance were identified.

7. Test Control

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' 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 reviewed test documentation for one safety-related hydrostatic test that was performed during the week of the NRC inspection. The NRC inspection team reviewed Reuter-Stokes' process for pre-testing and set-up of hydrostatic testing and discussed the test setup and how the procedures were followed with the hydrostatic test inspector. The NRC inspection team verified that the hydrostatic test documentation included the acceptance range and documented the equipment used to document the results. The NRC inspection team confirmed that the test was performed using properly calibrated measuring and test equipment (M&TE).

The NRC inspection team verified that Reuter-Stokes' test procedures adequately included the applicable technical, quality, and regulatory requirements. The NRC inspection team reviewed qualification records of the hydrostatic test technician performing the test. 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) any deviations documented and evaluated.

The NRC inspection team discussed the test control program with Reuter-Stokes 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 Reuter-Stokes 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 Reuter-Stokes is implementing its policies and procedures associated with the test control program. No findings of significance were identified.

8. Control of Measuring and Test Equipment

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' policies and implementing procedures that govern the 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 reviewed, 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, Reuter-Stokes generates an NC report 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 Reuter-Stokes' laboratories to observe that M&TE were labeled, handled, and stored in a manner that indicated the calibration status of the instrument and ensured its traceability to calibration test data. The NRC inspection team observed the calibration of a digital caliper and confirmed that the calibration was performed in accordance with Reuter-Stokes' procedures. The NRC inspection team also discussed the M&TE program with Reuter-Stokes' 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 Reuter-Stokes 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 Reuter-Stokes is implementing its policies and procedures associated with the M&TE program. No findings of significance were identified.

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

a. Inspection Scope

The NRC inspection team reviewed Reuter-Stokes' 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 reviewed a sample of nonconformance reports (NCRs) to verify that Reuter-Stokes: (1) dispositioned NCRs in accordance with the applicable procedures; (2) documented an appropriate technical justification for various dispositions; and (3) took adequate correction action with regard to the nonconforming items. In addition, the NRC inspection team confirmed that the nonconformance process provides a link to the 10 CFR Part 21 program.

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.

The NRC inspection team also discussed the nonconforming materials, parts, or components and corrective action programs with Reuter-Stokes' 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 Reuter-Stokes is implementing its nonconforming materials, parts, 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 also determined that Reuter-Stokes is implementing its policies and procedures associated with the control of nonconforming materials, parts, or components and corrective action programs. No findings of significance were identified.

9. Entrance and Exit Meetings

On October 31, 2022, the NRC inspection team discussed the scope of the inspection with Mr. Rod Martinez, Reuter-Stokes' Vice President/General Manager, and other members of Reuter-Stokes' management and technical staff. On November 4, 2022, the NRC inspection team presented the inspection results and observations during an exit meeting with Mr. Rod Martinez and other members of Reuter-Stokes' management and technical staff. On November 17, 2022, the NRC inspection team conducted an additional exit meeting to present the changes in the NRC position of inspection results after the QA Manager provided additional information to the preliminary results presented on November 4, 2022. The additional inspection results were discussed with Mr. David Colegrove, Reuter-Stokes' Manager of Quality Assurance.

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	Title	Affiliation	Entrance	Exit	Interviewed
Rod Martinez	Vice President/ General Manager	Reuter-Stokes	X	X	
David Colegrove	Manager of Quality Assurance	Reuter-Stokes	X	X ⁺	X
Paul Turkal	Welding & Material Lab Manager	Reuter-Stokes	X		X
Michelle C. Frye	Quality Engineer	Reuter-Stokes	X	X	
Cheryl Fousek	Quality Engineer	Reuter-Stokes	X	X	
Jessica Ace	Senior Sourcing Manager	Reuter-Stokes	X		
Dwayne Reid	Lead Mechanical Engineer	Reuter-Stokes	X		
Chad Longfield	Engineering Manager	Reuter-Stokes	X	X	
David Ryzner	Lead Mechanical Engineer	Reuter-Stokes	X	X	
Matthew Pacyna	Plant Manager	Reuter-Stokes	X	X	
Ahmed Sabet	Technology Leader	Reuter-Stokes	X	X	
Michael Claus	Mechanical Engineering Manager	Reuter-Stokes	X	X	
David Hopkins	Quality Engineer	Reuter-Stokes	X [*]	X [*]	
Scott Betschman	Senior Mechanical Engineer	Reuter-Stokes	X [*]	X	
Adonis Eid	Lead Quality Engineer	Reuter-Stokes		X [*]	
Chris Freeman	Nuclear Tech Lead	Reuter-Stokes		X	
Dan Schreiner	Nuclear Product Manager	Reuter-Stokes		X	
Bret Berkey	Production Lead	Reuter-Stokes			X
Jeremy Stephan	Test Engineer	Reuter-Stokes			X
Renee Fioramonti	Nuclear – Mechanical Inspector	Reuter-Stokes			X
Chris Simmers	Manufacturing Technician	Reuter-Stokes			X
Ben Kantura	Quality Control Technician	Reuter-Stokes			X

Name	Title	Affiliation	Entrance	Exit	Interviewed
John Arquilla	Quality Control Inspector	Reuter-Stokes			X
Kerri Kavanagh	Branch Chief	Nuclear Regulatory Commission (NRC)		X	
Dong Park	Inspection Team Leader	NRC	X	X ⁺	
Andrea Keim	Inspector	NRC	X	X ⁺	
Frankie Vega	Inspector	NRC	X	X ⁺	
Yiu Law	Inspector	NRC	X [*]	X ^{**}	

*Remote attendees at the entrance meeting on October 31 or exit meeting on November 4

⁺Attendees at the additional exit meeting on November 17

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 April 5, 2022

IP 43004, "Inspection of Commercial-Grade Dedication Programs," dated April 5, 2022

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
99901454/2022-201-01	OPENED	NON	Criterion VIII

4. DOCUMENTS REVIEWED

Policies and Procedures

- Reuter-Stokes, LLC (Reuter-Stokes) Quality Assurance Manual, Revision AN, Document No. 113036, dated July 29, 2021
- Reuter-Stokes Standard Operating Procedure (SOP)-891.2, "Dedication of Commercial Grade Items," Revision L, dated July 21, 2021
- Reuter-Stokes SOP-C-5230.9, "Inspection, Measuring and Test Equipment," Revision AU, dated July 20, 2022
- Reuter-Stokes SOP-1000.1, "Reporting of Defects and Noncompliance under 10CFR21," Revision F, dated May 23, 2022

- Reuter-Stokes SOP-290.15.1, "Nonconformance Report (NCR) Procedure," Revision AG, dated June 29, 2022
- Reuter-Stokes SOP-C-5290.13.2, "Corrective Action Procedure," Revision AH, dated January 10, 2020
- Reuter-Stokes SOP-370.0, "Supplier Evaluation," Revision F, dated May 10, 2021
- Reuter-Stokes SOP-C-5470.2, "Receiving Inspection Procedure," Revision AJ, dated June 3, 2021
- Reuter-Stokes ISO-SOP-7.3.6, "Design & Development Validation," Revision E, dated December 16, 2021
- Reuter-Stokes ISO-SOP-7.3, "Design Control," Revision T, dated June 18, 2021
- Reuter-Stokes ISO-SOP-7.3.4, "Design Review," Revision F, dated February 22, 2021
- Reuter-Stokes SOP-C-5130, "Design Software Control," Revision K, dated February 1, 2011
- Reuter-Stokes ISO-SOP-7.3.1, "Engineering Change Management Process Instructions," Revision D, dated September 28, 2020
- Reuter-Stokes SOP-C-5250.3, "Qualification of Inspection/Test Personnel and Other QA Personnel, Revision AD, dated March 3, 2021
- Reuter-Stokes SOP-290.19.8, "Quality Assurance Instructions Covering Inspection Sampling Plans, Revision G, dated June 22, 2018
- Reuter-Stokes SOP- C-5252.1, "Written Practice for Training, Examination and Certification of NDE Personnel," Revision N, dated July 12, 2018
- Reuter-Stokes SOP-C-5290.23, "QA Audits," Revision AL, dated August 6, 2021
- Reuter-Stokes SOP-C-5255.1.1, "Brazing Procedure and Brazing Operator Qualification Procedure," Revision H, dated May 21, 2014
- Reuter-Stokes SOP-C-5254.1.1, "GTAW -Weld Procedure and Welder/Welding Operator Qualification Procedure," Revision L, dated October 23, 2017
- Reuter-Stokes WPS-C-51.2, "Detailed Welding Procedure Seal to Grand 1.343" OD X 0.130" Wall," Revision N, dated May 2, 2014
- Reuter-Stokes MP-194X927, "Manufacturing Procedure for Sensor & Converter," Revision H, dated April 25, 2022

- Reuter-Stokes SOP-256.0, "Soldering for Boards, Assemblies, and Cables," Revision A, dated January 29, 2010
- Reuter-Stokes SOP-C-5290.16.2, "Identification and Control of Parts and Material," Revision N, dated January 8, 2018
- Reuter-Stokes SOP-250.2.1, "Indoctrination and Training," Revision K, dated September 19, 2022
- Reuter-Stokes SOP-C-5291.0, "Records Control," Revision AF, dated May 23, 2022
- Reuter-Stokes MP-E3-0021, "Connector Assembly Procedure for Reuter-Stokes-E3-0021," Revision F, dated March 7, 2022
- Reuter-Stokes SOP-C-5243.2, "Four Chamber Hydrostatic Test Stand Procedure," "Revision N, dated February 6, 2017
- Reuter-Stokes SOP-C-5290.24, "Qualification of Audit Personnel," Revision AA, dated August 9, 2021
- Reuter-Stokes SOP-374, "Supplier Deviation Request Process", " Revision M, dated January 6, 2020

Engineering Change Notices (ECN)

- ECN 500000471513, dated September 23, 2022
- ECN 500000469375, dated September 7, 2022
- ECN 500000474463, dated October 17, 2022
- ECN 500000400929, dated April 7, 2021

Technical Evaluations (TE)

- TE-1803-01, "Calibration Services Technical Evaluation," Revision A, dated July 23, 2021
- TE-1904-01, "Sensor & Converter Gasket Technical Evaluation," Revision A, dated March 16, 2022
- TE-1805-01, "Actuating Cartridge Technical Evaluation," Revision A, dated November 1, 2021
- TE-1910-01, Solenoid Valve Technical Evaluation, dated October 15, 2019

Calibration, Heat Treatment, Non-Destructive Examination, Inspection and Test Records

- Certificate of Calibration #: 22007814-190-02069, pressure gage, dated September 19, 2022
- Certificate of Calibration #: 22003384-175-02087, Thread Set Plug Gage, dated June 27, 2022
- Certificate of Calibration # 22001218-190-01122, pressure gage, dated March 28, 2022
- Certificate of Calibration #: 22007814-190-02071, pressure gage, dated September 19, 2022
- Certificate of Calibration #: 22001218-190-01146, pressure gage, dated March 31, 2022

Drawings

- Drawing C6-0345-20X, "NA-250 Detector Assembly," Revision J, dated September 23, 2022
- Drawing C6-0342-20X, "NA-250 Detector Assembly," Revision E, dated September 23, 2022
- Drawing C6-0410-201-2, "Lower Cable Assembly," Revision L, dated September 7, 2022
- Drawing C6-0430-204-32, "Upper Cable Assembly," Revision J, dated September 7, 2022
- Drawing C6-0430-201, "WRNM Sensor Assembly," Revision M, dated September 7, 2022
- Drawing C6-0350-201-46, "Tube Assembly," Revision D, dated May 31, 2022
- DWG No. C6-130X-90X, Power Range Detector Assembly, Rev D

Manufacturing Procedures (MP)

- MP-C6-0340-20X, "NA-250 Detector Assembly," Revision AG, dated February 3, 2022
- MP-C6-0340-20X, "NA-250 Detector Assembly," Revision AJ, dated September 27, 2022

Travelers and Work Packages

- NA-300 LPRM Inconel, Production Order No. 31621792, Serial No. 1474175, dated August 24, 2022
- Sensor & Converter, Production Order No. 31696605, dated November 2, 2022
- Traveler, Production order 31621792 "LPRM for Brunswick" Serial number 22101ZK1 and 22101ZK2 (hydro-testing)

- Traveler for production order no. 31696614 (receipt inspection record-Insulator, plug)

M&TE Records

- Calibration Records for A-4943, Digital Caliper 8, Serial No. B20105406, dated November 1, 2022
- Certificate of Calibration No. 5263670001e for Gage Block Set, Asset Number: NS-003, Serial No. 11579.9, dated March 3, 2021
- Certificate of Calibration No. 5177710005e for a Ring Gage, Asset Number: A-458, Barcode:CL008337d November 19, 2020
- Certificate of Calibration No. 22001467-175-01329 for 04627 Ring Gages, Serial No: A-1028, dated March 31, 2022
- Certificate of Calibration No. 22001052-190-01033 for Digital Pressure Gage, Serial No: 519218 Client ID: A-4872, dated March 14, 2022
- Certificate of Calibration No. 17437528 for Oscilloscope, Serial No: MY53280492 Instrument ID: A-4721, dated July 20, 2022
- Calibration Record for Weld Head, Serial No: 19133569 Instrument ID: A-4726, dated July 15, 2022
- Calibration Sticker for Digital Caliper 8, A-4943, Due: November 2, 2023
- Calibration Sticker for Gage Block Set, S/N: NS-003, Due: March 3, 2023
- Calibration Sticker for Ring Gage, S/N: A-458, Due: November 18, 2022
- Calibration Sticker for Ring Gages, S/N: A-1028, Due: March 29, 2024

Purchase Orders, Audit Report, Commercial-Grade Surveys and Receipt inspection reports

- PO No. 5051553336, dated September 09, 2020
- PO No. 5051991408, dated October 06, 2022
- PO No. 90000228776, dated January 08, 2020
- PO No. 8000000592, dated September 09, 2021
- PO No. 5051655187, dated April 6, 2021
- PO No. 5051651793, dated March 30, 2021
- PO No. 5051785094, dated November 4, 2021

- PO No. 5051391372, dated October 23, 2019
- PO No. 5051854993, dated February 23, 2022
- PO No. 5051565036, dated October 4, 2020
- PO No. 5051565036, dated October 4, 2020
- Receipt inspection report for PO 5051565036, dated 09/19/2022
- PO No. 5051714520, dated July 11, 2021
- Receipt inspection report for PO 5051714520, dated September 27, 2022
- PO No. 5051624788, dated February 10, 2021
- Receipt inspection report for PO 5051624788, dated 06/20/2022
- PO No. 5051651796, dated March 30, 2021
- Receipt inspection report for PO 5051651796, dated 10/19/2022
- PO No. 5051847846, dated February 10, 2022
- Receiving inspection report for Plug Insulator, PO 5051847846
- PO No. 505165178, dated 03/30/2021
- Receipt inspection report for PO 505165178, dated 10/22/2022
- PO No. 5051762664, dated September 30, 2021
- PO No. 5050947173, dated July 17, 2017
- PO No. 00691551, dated May 15, 2019
- PO No. 00678368, dated January 14, 2019
- PO No. 10538582, dated February 14, 2018
- PO No. 00699773, dated August 12, 2019
- PO No. 00678035, dated January 7, 2019
- PO No. 00701219, dated July 14, 2020
- PO No. 00701219, dated August 25, 2020

- PO No. 00701219, dated February 8, 2021
- PO No. SNG39365-0053, dated August 27, 2020
- External Audit Report, audit performed June 25-27, 2019
- External Audit Report, audit performed October 22-25, 2018
- External Audit Report, audit performed September 24-27, 2018

Nonconformance Records

- 877, 950, 1066, 1422, 1423, 1554, 1619, 1620, 1731, 1738
- NCR 0001114
- NCR 119229654

Corrective Action Records

- 20-038, 21-009, 21-010, 21-017, 21-020, 21-023, 21-024, 21-029, 21-035, 22-001, 22-002, 22-004, 22-020, 22-023, 22-024, 22-025, 22-027, 22-031

Corrective Action Requests Opened During the NRC Inspection

- Reuter-Stokes CAR No. 22-033, 22-034, 22-035 and 22-036

10 CFR Part 21 Records

- Reuter-Stokes CAR No. 20-038, Part 21 Evaluation for spurious spiking signals for sensors and converters, dated December 4, 2022
- TR-2012-02, "S&C Part 21 Analysis," dated December 4, 2020
- Reuter-Stokes CAR No. 21-035, Part 21 Evaluation for LEMO connectors, dated February 7, 2022
- J-2202-1, "Reuter-Stokes-E3-0021 Assembly Test Fixture," dated February 22, 2022

Test Records

- Test Report R-20210217-073, dated February 23, 2021

Personnel Qualification Records

- Lead Auditor qualification records for Edward A. Bowen, Fred Jefferson
- Quality Control Inspectors qualification records for Robert Erickson, Troy Guthrie and Renee Fioramonti

- Record of Welder or Welding Operator Qualification Test (WPQ) for Chris Simmers
- Non-destructive Examination (NDE) Personnel Qualification and Certification of John Arquilla
- NDE Personnel Qualification and Certification of Ben Kantura
- Hydrostatic test inspector, Nick Slabaugh
- Training Record for 10 CFR Part 21, dated July 20, 2022
- Training Record for “Training for New Reuter-Stokes-E3-0021 J2202-1 Assembly Check Tool, Review Updated MP-E3-0021 and SOP-244.3,” dated March 29, 2022