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

October 2, 2023

Mr. Victor Apostolescu
Vice-President of Quality Assurance
Velan, Inc.
7007 Cote De Liesse
Montréal, QC, H4T 1G2, Canada

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF VELAN, INC. NO. 99900061/2023-201

Dear Mr. Apostolescu:

On August 14 - 18, the U.S. Nuclear Regulatory Commission (NRC) staff conducted an inspection at the Velan, Inc.'s (hereafter referred to as Velan) facility in Montreal, Canada. The purpose of this limited-scope routine inspection was to assess Velan's compliance with provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21, "Reporting of Defects and Noncompliance," and selected portions of Appendix B, "Quality Assurance Program Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities."

This technically focused inspection specifically evaluated Velan's implementation of quality activities associated with the design, fabrication, and testing of safety-related valves and components for U.S. nuclear power plants. In addition, the NRC inspection team evaluated Velan's closure of the inspection findings documented in inspection report No. 99900061/2017-201, dated June 5, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17142A142). The enclosed report presents the results of the inspection. This NRC inspection report does not constitute NRC's endorsement of Velan's overall quality assurance (QA) or 10 CFR Part 21 programs.

Within the scope of this inspection, no violations or nonconformances were identified.

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding" and the NRC's "Rule of Practice," a copy of this letter, its enclosure(s), and your response will be made available electronically for public inspection in the NRC's Public Document Room or from the NRC's document system (ADAMS), accessible at http://www.nrc.gov/reading-rm/adams.html.

Sincerely,

Signed by Kavanagh, Kerri
on 10/02/23

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

Docket No.: 99900061

EPID No.: I-2023-201-0025

Enclosures:
1. Inspection Report No. 99900061/2023-201
and Attachment

SUBJECT: NUCLEAR REGULATORY COMMISSION VENDOR INSPECTION REPORT OF VELAN, INC NO. 99900061/2023-201 DATE: October 2, 2023

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ADAMS Accession No.: ML23242A186 **NRR-106**

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

Docket No.:	99900061
Report No.:	99900061/2023-201
Vendor:	Velan, Inc. 7007 Cote De Liesse Montréal, QC, H4T 1G2, Canada
Vendor Contact:	Victor Apostolescu Vice President of Quality Assurance Phone: 1(438) 817-9908 Email: victor.apostolescu@velan.com
Nuclear Industry Activity:	Velan, Inc. is under contract with several domestic operating reactors to provide safety-related valves and valve replacement parts. Velan, Inc.'s scope of supply includes safety-related and American Society of Mechanical Engineers Boiler Pressure Vessel Code Class 1, 2, and 3 valves and valve replacement parts.
Inspection Dates:	August 14 - 18, 2023

Inspectors:		
Aaron Armstrong	NRR/DRO/IQVB	Team Leader
Yamir Diaz-Castillo	NRR/DRO/IQVB	
Odunayo Ayegbusi	NRR/DRO/IQVB	
Frankie Vega	NRR/DRO/IQVB	

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

Enclosure

EXECUTIVE SUMMARY

Velan, Inc.
99900061/2023-201

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a limited-scope routine vendor inspection at the Velan, Inc. (hereafter referred to as Velan) facility in Montreal, Canada, to verify that it had implemented an adequate quality assurance (QA) program that complies with the requirements of Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR Part 21, "Reporting of Defects and Noncompliance." The NRC inspection team conducted this inspection on-site on August 14 - 18, 2023. The last inspection at this facility was conducted in May 2017.

This technically focused inspection specifically evaluated Velan's implementation of the quality activities associated with the design, fabrication, and testing of safety-related valves and components being supplied to U.S. nuclear power plants. In addition, the NRC inspection team evaluated Velan's closure of the inspection findings documented in inspection report (IR) No. 99900061/2017-201, dated June 5, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17142A142).

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) 43002, "Routine Inspections of Nuclear Vendors," dated February 10, 2023; 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 NRC inspection team observed the following specific activities:

- Dedication activities associated with a 1" disk union (Part No. 3554-001-062) and a packing flange for a 1½" 2680 bonnetless inclined globe valve
- Calibration activities associated with a Vernier caliper (G22-12171)
- Receipt inspection activities associated with a body for a 1" globe valve (Shop order No. S10012369)
- Liquid penetrant testing of a 2" bonnetless inclined globe valve, Section III of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Class 2, 1974 Edition
- Hydrostatic testing of a 2" globe valve

The results of this inspection are summarized below.

Nonconforming Materials, Parts, or Components and Corrective Action

The NRC inspection team reviewed the corrective actions that Velan implemented to address

Violation 99900061/2017-201-01, Nonconformance 99900061/2017-201-02, and Nonconformance 99900061/2017-201-03, documented in IR No. 99900061/2017-201. The NRC inspection team reviewed the documentation that provided the objective evidence that all the corrective actions were completed and adequately implemented. Based on this review, the NRC inspection team closed Violation 99900061/2017-201-01, Nonconformance 99900061/2017-201-02, and Nonconformance 99900061/2017-201-03.

Inspection Areas

The NRC inspection team determined that Velan established its programs for nonconforming material, parts, or components, corrective action, design control and qualification, commercial grade dedication, material traceability, procurement document control, supplier oversight, measuring and test equipment, and internal audits, 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 Velan is implementing its policies and procedures associated with these programs. In addition, the NRC inspection team determined that Velan is implementing its 10 CFR Part 21 program for evaluating deviations and reporting defects that could create a substantial safety hazard in accordance with the applicable regulatory requirements. No findings of significance were identified in these areas.

REPORT DETAILS

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

a. Inspection Scope

The NRC inspection team reviewed Velan's 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, "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 verified that Velan's processes and procedures provide for the identification, documentation, segregation, evaluation, and disposition of nonconforming items. These processes also apply the principles of rework/repair, use-as-is, scrap/salvage, return to vendor, or no defect found.

The NRC inspection team reviewed a sample of Nonconformance Reports (NCRs) and confirmed that Velan: (1) dispositioned the NCRs in accordance with the applicable procedures; (2) documented an appropriate technical justification for the dispositions; and (3) took adequate corrective action regarding the nonconforming items to prevent recurrence. In addition, the NRC inspection team verified that the nonconforming materials, parts, or components process provides a link to the 10 CFR Part 21, "Reporting of Defects and Noncompliance," program.

The NRC inspection team also reviewed a sample of Corrective Action Reports (CARs) and confirmed that the CARs contained, as applicable: (1) adequate documentation and description of conditions adverse to quality; (2) an appropriate analysis of the cause of these conditions and the corrective actions taken to prevent recurrence; (3) direction for review and approval by the responsible authority; (4) a description of the current status of the corrective actions; and (5) the actions taken to verify timely and effective implementation of the corrective actions. In addition, the NRC inspection team verified that the corrective action process provides a link to the 10 CFR Part 21 program.

Furthermore, the NRC inspection team reviewed Velan's corrective actions in response to the inspection findings identified in the NRC's inspection report (IR) No. 99900061/2017-201, dated June 5, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17142A142).

The NRC inspection team discussed the nonconforming materials, parts or components and corrective action programs with Velan's 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

b1. Corrective Action Associated with Violation 99900061/2017-201-01

Following the May 2017 inspection at Velan as documented in NRC IR No. 99900061/2017-201, the NRC issued one violation and two nonconformances: Violation 99900061/2017-

201-01, Nonconformance 99900061/2017-201-02, and Nonconformance 99900061/2017-201-03. Violation 99900061/2017-201-01 was issued for Velan's failure to specify in procurement documents for suppliers of safety-related materials and services that the provisions of 10 CFR Part 21 apply. Specifically, Velan imposed in the purchase order (POs) that suppliers meet procedure VEL-QCI-561, "The Application of U.S. NRC Regulations 10 CFR Part 21 as applicable to Non-US Suppliers," Revision 0, dated January 3, 1978, rather than imposing the applicable requirements of 10 CFR Part 21. Velan developed this procedure to address the fact that Velan's international suppliers do not implement a program that meets the requirements of 10 CFR Part 21 and therefore will not accept POs that impose 10 CFR Part 21. This procedure relieved Velan's suppliers from their responsibilities under 10 CFR Part 21 and required the suppliers to notify Velan of any deviations identified in the materials or services supplied to Velan.

In a letter dated October 16, 2017 (ADAMS Accession No. ML17305A053), Velan stated that its Appendix B to 10 CFR Part 50 Quality Manual, VEL-QC-155, would be revised to clarify the requirements for invoking 10 CFR Part 21 on Velan's suppliers, according to the type of controls necessary. In addition, VEL-QC-155 would be updated to provide adequate guidance on all options available to Velan for procurement of commercial grade or safety-related items that are incorporated into basic components for the nuclear industry, under the controls established in Velan's program for design, assembly, test, etc. Velan also stated that VEL-QCI-561 would be cancelled.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion of the corrective actions. The NRC inspection team verified that VEL-QC-155 was revised and now provides clarifying guidance on the requirements for invoking 10 CFR Part 21 on Velan's suppliers and verified that VEL-QCI-561 was canceled. In addition, the NRC inspection team reviewed a limited sample of POs for international suppliers and noted the Velan is no longer imposing VEL-QCI-561 or relieving Velan's suppliers from their responsibilities under 10 CFR Part 21.

The NRC inspection team determined that Velan's corrective actions were adequately implemented to address Violation 99900061/2017-201-01. Based on its review, the NRC inspection team closed Violation 99900061/2017-201-01. No findings of significance were identified.

b.2. Corrective Action Associated with Nonconformance 99900061/2017-201-02.

Nonconformance 99900061/2017-201-02 was issued for Velan's failure to include the applicable regulatory requirements in its safety-related procurement documents for materials and services procured as basic components that are necessary to ensure that adequate quality is suitably included or referenced. Specifically, Velan did not impose the requirements of Appendix B to 10 CFR Part 50 in its safety-related POs for materials and services procured as basic components. Rather than imposing Appendix B to 10 CFR Part 50, Velan states in the POs that the work must be performed in accordance with the suppliers' quality assurance (QA) manual approved by Velan. The NRC inspection team noted examples of materials and services procured without the imposition of Appendix B to 10 CFR Part 50 in the POs. The POs shall specify compliance with the requirements of Appendix B to 10 CFR Part 50 to ensure that adequate QA is applied and to ensure that Appendix B to 10 CFR Part 50 is adequately passed down to the sub-suppliers.

In a letter dated October 16, 2017, Velan stated that VEL-QC-155 would be updated to

provide adequate guidance on all options available to Velan for the procurement of commercial grade or safety-related items. In addition, Velan would be canceling VEL-QCI-561.

The NRC inspection team reviewed the documentation that provided objective evidence for the completion of the corrective actions. The NRC inspection team verified that: (1) VEL-QC-155 was revised and now provides clarifying guidance on the requirements for invoking Appendix B to 10 CFR Part 50 and 10 CFR Part 21 on Velan's suppliers, and (2) clarified the type of controls necessary for each classification of supplier. The NRC inspection team also verified that VEL-QCI-561 was canceled. In addition, the NRC inspection team reviewed a limited sample of POs for safety related suppliers and noted the Velan is imposing the requirements of Appendix B to 10 CFR Part 50 and 10 CFR Part 21 on their safety-related suppliers.

The NRC inspection team determined that Velan's corrective actions were adequately implemented to address Nonconformance 99900061/2017-201-02. Based on its review, the NRC inspection team closed Nonconformance 99900061/2017-201-02. No findings of significance were identified.

b.3. Corrective Action Associated with Nonconformance 99900061/2017-201-03

Nonconformance 99900061/2017-201-03 was issued for Velan's failure to establish adequate measures for source evaluation and selection of contractors and subcontractors and failed to establish adequate measures to obtain objective evidence of quality furnished by the contractors or subcontractors. Specifically, the NRC inspection team identified several instances in which the audit checklists did not provide sufficient objective evidence to support the conclusion that the suppliers had met the applicable requirements of Subsection NCA-3850, "Quality System Program Requirements," of Subsection NCA, "General Requirements for Division 1 and Division 2," of Section III, "Rules for Construction of Nuclear Facility Components," of the American Society of Mechanical Engineers (ASME) Boiler & Pressure Vessel (B&PV) Code. The NRC inspection team noted that the checklist requirements were identified as being met, however, there was no additional information provided within the checklist to support the auditor's conclusion that the applicable NCA-3850 requirement was met. The NRC inspection team also noted that the checklists did not provide a clear connection to the applicable requirements of NCA-3850. In addition, the NRC staff noted that the auditor's findings were often cited against the requirements of International Organization for Standardization (ISO) 9001:2008, "Quality management systems – Requirements," and ISO/International Electrotechnical Commission (IEC) 17025:2005, "General requirements for the competence of testing and calibration laboratories," and not against the applicable requirement of NCA-3850.

For material for components of 2" or less of nominal pipe size, Velan has been procuring these materials as basic components from commercial suppliers. Since this material is exempted from the applicable requirements of Section III of the ASME B&PV Code, Velan has not been conducting a supplier audit to verify and document the effectiveness of the suppliers' quality program to meet the requirements of Appendix B to 10 CFR Part 50 and 10 CFR Part 21, or conducting any additional verification or acceptance activities to ensure that the components would perform their intended safety-related function.

The NRC inspection team determined that the external audits performed by Velan on their Appendix B to 10 CFR Part 50 safety-related suppliers did not contain sufficient objective

evidence to conclude that Velan had verified that the suppliers had passed down the applicable technical and regulatory requirements from the POs to their sub-suppliers.

In a letter dated October 16, 2017, Velan stated that it would train its Lead Auditors to ensure that the audit checklists will be completed to the extent necessary to support the audit recommendations. In addition, Velan would implement additional tests and examinations of at least one piece for each heat of material. Furthermore, Velan stated that audit checklists would be revised to add sufficient questions on this subject. VEL-QC-155 would be revised to provide adequate guidance on all options available for Velan's procurement of commercial grade or safety-related items that are subsequently incorporated into basic components for the nuclear industry. In addition, Velan would be canceling VEL-QCI-561.

The NRC inspection team reviewed the documentation that provided the objective evidence for the completion of the corrective actions. The NRC inspection team verified that auditors were trained, and that audits checklist were completed to the extent necessary to support the audit requirements for the scope being audited. The NRC inspection team reviewed a limited sample of audits and verified the Velan's checklists have sufficient objective evidence to support the activity audited.

The NRC inspection team determined that Velan's corrective actions were adequately implemented to address Nonconformance 99900061/2017-201-03. Based on its review, the NRC inspection team closed Nonconformance 99900061/2017-201-03. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that Velan 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 Velan is implementing its policies and procedures associated with its nonconforming materials, parts, or components and corrective action programs. No findings of significance were identified.

2. Design Control

a. Inspection Scope

The NRC inspection team reviewed Velan's 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 to 10 CFR Part 50 and the applicable requirements of Subsection NCA, Section III of ASME B&PV Code.

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, nonconformance reports, and ASME B&PV Code data reports. Specifically, the NRC inspection team reviewed three design packages for the following components: (1) ¼" bolted bonnet gate valve (ASME B&PV Code Section III 1989 Edition), (2) 16" butterfly valve, and (3) 1½" bolted cover piston check valve (ASME B&PV Code Section III 1974 Edition).

The NRC inspection team confirmed that the customer requirements were adequately translated into the applicable Velan's drawings, instructions, procedures, and specifications for the fabrication of the valves. The NRC inspection team also confirmed that for a sample of the documentation associated with the design package, the documentation included the applicable technical and regulatory requirements as required by customer specifications, Velan's procedures, and the applicable ASME B&PV Code requirements. The NRC inspection team also evaluated how the design specifications were met and how design changes were controlled and approved. In addition, the NRC inspection team verified that the materials of construction and components for the valves conformed to the appropriate material specification, design specification, and ASME B&PV Code requirements.

The NRC inspection team confirmed that Velan's design control process is being implemented in accordance with the applicable regulatory requirements, and that Velan has correctly translated the design basis into the applicable specifications, drawings, procedures, and instructions. The NRC inspection team verified that Velan's 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 evaluated Velan's process for upgrading unqualified source material in accordance with the requirements of NCA-4255.5, "Utilization of Unqualified Source Material." The NRC inspection team reviewed a sample of material Certificate of Conformances, receiving documents, and the supporting laboratory test reports for several valve bodies and valve discs. The NRC inspection team confirmed that the test reports included the results of the chemical analysis and mechanical properties testing in accordance with the material specification performed on the piece of material in accordance with the requirements of NCA-4255.5. The NRC inspection team also verified that the test results were consistent and from the same heat number.

The NRC inspection team also discussed the design control and utilization of unqualified source material programs with Velan's 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 Velan 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 determined that Velan is implementing its policies and procedures associated with the design control program. No findings of significance were identified.

3. Commercial-Grade Dedication

a. Inspection Scope

The NRC inspection team reviewed Velan's 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 and Criterion VII, "Control of Purchased Material, Equipment, and Services," of Appendix B to 10 CFR Part 50.

Velan's CGD process consists of developing CGD plans that include: (1) technical evaluation; (2) part identification; (3) safety functions; (4) credible failure mechanisms; (5) critical characteristics and verification methods for acceptance. The NRC inspection team reviewed a sample of CGD packages to assess the implementation of Velan's CGD program. The sample of CGD plans included the following valve components: stem, disc, nut, cover disk, seat, disk insert and body stud. Within these CGD plans, the NRC inspection team reviewed: (1) purchase orders (POs); (2) shop order; (3) technical evaluations; (4) checklists; (5) inspection and test reports; and (6) Certificates of Conformance. The NRC inspection team evaluated the criteria for the identification of item functions, credible failure mechanisms/modes, selection of critical characteristics and acceptance criteria, identification of verification methods and justification of the sampling methodologies, as applicable, to verify the effective implementation of Velan's CGD process. The NRC inspection team confirmed that Velan's CGD process provides reasonable assurance that the items and services being dedicated would perform their intended safety function.

The NRC inspection team observed Velan performing dedication activities associated with safety-related parts for a 1" disk union (Part No. 3554-001-062) and a 1½" 2680 bonnetless inclined globe valve and verified that: (1) the critical characteristics and acceptance methods were correctly specified; (2) the drawings and material specifications containing the associated acceptance criteria for each critical characteristic; and (3) the inspection reports adequately documented the acceptance of the critical characteristics. In addition, the NRC inspection team confirmed the test technician was using calibrated measuring and testing equipment (M&TE) to take the appropriate measurements. Furthermore, the NRC inspection team reviewed the training records of the test technician and confirmed that he was adequately trained and qualified in accordance with Velan's policies and procedures.

The NRC inspection team also discussed the CGD program with Velan's 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 Velan 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 Velan is implementing its policies and procedures associated with the CGD program. No findings of significance were identified.

4. Procurement Document Control and Supplier Oversight

a. Inspection Scope

The NRC inspection team reviewed Velan's policies and implementing procedures that govern the implementation of its procurement document control and supplier oversight programs 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 reviewed Velan's approved vendor list (AVL), and a sample of POs, supplier audits and commercial-grade surveys, job travelers, and receipt inspection records. For the sample of POs reviewed, the NRC inspection team verified that the POs included, as appropriate: (1) the scope of work, (2) right of access to the suppliers' facilities, and (3) conditions and restrictions imposed on the sub-suppliers. The NRC inspection team 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 Velan for compliance with the requirements of the POs, (2) the records were approved by qualified individuals, and (3) the records contained the applicable technical and regulatory information. The NRC inspection team also performed a walkdown of the receipt inspection and quality control inspection area.

The NRC inspection team selected a sample of suppliers from the AVL 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 confirmed the following: (1) the audit reports included an audit plan; (2) audits were performed according to established frequency; (3) audit reports included adequate documented objective evidence of compliance with the applicable requirements; and (4) the audit documentation was reviewed by Velan's responsible management.

The NRC inspection team also discussed the procurement document control and supplier oversight programs with Velan's 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 a of sample of commercial-grade surveys, the NRC inspection team noted that Velan performed one fully remote commercial-grade survey of a supplier of microbiological testing and high-quality water verification. This supplier tests the water used in the hydro tests performed by Velan. During discussions with Velan's staff, the NRC inspection team learned that this was a new supplier for Velan which was unable to allow Velan on property to perform the survey at that time. Velan did not have programmatic controls in place in their QA program to allow them to utilize NRC approved guidance to conduct remote surveys during exigent conditions (ADAMS Accession No. ML21161A201). The NRC inspection team determine this issue to be minor because Velan performed additional tests and inspections of the valves (i.e., Method 1) before the valves are shipped which demonstrated that there was no degradation of the valves. Velan initiated CAR No. 2023-NRC-03 to address this issue. No findings of significance were identified.

c. Conclusion

The NRC inspection team concluded that Velan is implementing its procurement document control and supplier oversight programs 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 determined that Velan is adequately implementing its policies and procedures associated with the procurement document control and supplier oversight programs. No findings of significance were identified.

5. Material Traceability

a. Inspection Scope

The NRC inspection team reviewed Velan's policies and implementing procedures that govern the implementation of its material control 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-down of the following areas: processing floor, testing, CGD area, receipt inspection, nonconforming material storage, and final inspection. The NRC inspection team confirmed that materials were adequately identified with Velan's unique identification code, which is traceable to the POs and vendor certification reports.

The NRC inspection team witnessed ongoing shop activities related to product receipt and acceptance and verified that Velan staff adequately performed intake activities including: (1) material identification, (2) assignment of unique certification numbers to orders, (3) determining additional routing of materials necessary for formal receipt inspection, and (4) entry into Velan's inventory.

The NRC inspection team also reviewed in-process fabrication and CGD 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 shop order documentation and confirmed material identification for each process step was adequately documented in accordance with the applicable procedures.

The NRC inspection team discussed the material traceability program with Velan's 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 Velan established its material traceability program in accordance with the regulatory requirements of Criterion VIII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team

determined that Velan is adequately implementing its policies and procedures associated with the material traceability program. No findings of significance were identified.

6. Control of Special Processes

a. Inspection Scope

The NRC inspection team reviewed Velan's policies and implementing procedures that govern the implementation of it 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 applicable requirements of Section V, "Nondestructive Examination," Section IX, "Welding and Brazing Qualification," of the ASME B&PV Code, and with the American Society for Nondestructive Testing (ASNT) SNT-TC-1A, "Personnel Qualification and Certification in Nondestructive Testing."

There were no safety-related welding activities performed during the week of the inspection. As such, the NRC inspection team reviewed a sample of completed Welding Procedure Specifications (WPS) and their associated Procedure Qualification Records (PQR). The NRC inspection team confirmed the WPS and PQRs contained the required information in accordance with the applicable Velan's welding procedures and requirements of Section IX of the ASME B&PV Code.

The NRC inspection team performed a walk-through of the weld storage area and confirmed that weld rods were being adequately controlled to prevent degradation, inadvertent use, or loss of traceability in accordance with the applicable Velan's welding procedures. The NRC inspection team also reviewed several tickets used for issuing weld rods and confirmed that the weld rods were adequately issued to the welder. The NRC inspection team noted that the weld area was secured, clean, and protected from wind and moisture. In addition, the NRC inspection team noted that the weld ovens used to keep weld rods were calibrated within the range of use using known traceable standards.

The NRC inspection team also observed the liquid penetrant testing of a 2" bonnetless inclined globe valve, Section III of the ASME B&PV Code, Class 2, 1974 Edition and Addenda for Entergy Nuclear Operations, Inc. The NRC inspection team confirmed that the NDE inspector performed the NDE in accordance with the applicable Velan's NDE procedures and the requirements of Section V of the ASME B&PV Code. The NRC inspection team verified that the NDE inspector was adequately qualified and used calibrated equipment that was within the applicable calibrated range. The NDE inspector adequately documented the NDE results in the appropriate forms. The NRC inspection team also reviewed a sample of NDE reports from three completed valve data packages and confirmed that the NDE reports contained the required information in accordance with Velan's NDE procedures and Section V of the ASME B&PV Code.

In addition, the NRC inspection team also reviewed a welder qualification record and confirmed that the welder had completed the required training and had maintained his training and qualification in accordance with Velan's welding procedures and the applicable requirements of Sections III and IX of the ASME B&PV Code. In addition, the NRC inspection team reviewed a sample of Velan's NDE personnel training and qualification records and confirmed that the NDE personnel had completed the required training and had maintained their qualifications in accordance with Velan's NDE procedures and the applicable requirements of ASNT SNT-TC-1A and Section III and Section V of the ASME

B&PV Code.

The NRC inspection team also discussed the control of special processes program with Velan's 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 Velan 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 Velan 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 Velan's 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 observed the in-process hydrostatic test of a 2" globe valve and reviewed the test documentation associated with the completed hydrostatic test for a 1-1/2" piston check valve, a 16" butterfly valve, and a 1/4" gate valve. The NRC inspection team verified that the assembly and final test procedures including the job operation reports, modification/final assembly instructions, and calibration and verification testing procedures adequately identified the testing required, pre-requisites, acceptance criteria, and objective evidence of proper review and acceptance.

The sample also contained recorded test results input data, test equipment logs, and identification of the test technicians performing the work. The NRC inspection team confirmed that the tests were performed using properly calibrated M&TE. The NRC inspection team also reviewed the training and qualification records of the test technicians identified in the reports and confirmed that testing personnel had completed all the required training and had maintained the applicable qualification and certification in accordance with Velan's policies and procedures.

The NRC inspection team discussed the test control program with Velan's 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 Velan 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 determined that Velan is adequately 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 Velan's policies and implementing procedures that govern the implementation of its M&TE program to verify compliance with the requirements of Criterion XII, "Control of Measuring and Test Equipment," of Appendix B to 10 CFR Part 50.

For a sample of M&TE, the NRC inspection team determined that the M&TE had the appropriate calibration stickers and current calibration dates, including the calibration due date. The NRC inspection team also verified that the M&TE had been calibrated, adjusted, and maintained at prescribed intervals prior to use. In addition, the calibration records reviewed by the NRC inspection team indicated the as-found or as-left conditions, accuracy required, calibration results, calibration dates, and the due date for recalibration. The NRC inspection team also verified that the selected M&TE was calibrated using procedures traceable to known industry standards. The NRC inspection team verified that the selected M&TE, used in the CGD of a disc union and packing flange for a ½" 2680 Bonnetless inclined globe valve, was calibrated and labeled, and the associated certificate of calibration stated the traceability to a nationally recognized standard.

The NRC inspection team confirmed that when M&TE equipment is found to be out of calibration, Velan creates a deviation label, generates M&TE out-of-tolerance deviation reports, and segregates the item for further evaluation.

The NRC inspection team performed a walk-down of Velan's calibration laboratory. The NRC inspection team observed the calibration of an internal caliper and confirmed that the calibration was performed in accordance with Velan's procedures.

The NRC inspection team also discussed the M&TE program with Velan's 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 Velan 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 Velan is implementing its policies and procedures associated with the M&TE program. No findings of significance were identified.

9. Internal Audits

a. Inspection Scope

The NRC inspection team reviewed Velan's policies and implementing procedures that govern its internal audit program to verify compliance with the requirements of Criterion XVIII, "Audits," of Appendix B to 10 CFR Part 50. The NRC inspection team reviewed Velan's internal audit plans, internal audit reports, and corrective actions generated during internal audits.

The NRC inspection team verified that Velan's procedures described the scope and purpose of audits to be performed, the frequency, audit criteria, and corrective actions when required. The NRC inspection team verified that the audit teams were selected using qualified auditors and that they were not auditing their own work. The NRC inspection team verified that internal audits were performed using checklists. The NRC inspection team verified that the audit documents reviewed were adequately completed and that Velan adequately corrected the conditions identified in CARs generated during internal audits.

The NRC inspection team discussed the internal audits program with Velan's 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 Velan is implementing its internal audits program in accordance with the regulatory requirements of Criterion XVIII of Appendix B to 10 CFR Part 50. Based on the limited sample of documents reviewed, the NRC inspection team determined that Velan is adequately implementing its policies and procedures associated with the internal audit program. No findings of significance were identified.

10. 10 CFR Part 21 Program

a. Inspection Scope

The NRC inspection team reviewed Velan's policies and implementing procedures that govern the implementation of its 10 CFR Part 21, program to verify compliance with the regulatory requirements. The NRC inspection team evaluated the 10 CFR Part 21 postings and a sample of Velan's 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."
In addition, for a sample of 10 CFR Part 21 evaluations performed by Velan, the NRC inspection team verified that Velan 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 Velan's 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 Velan 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 Velan is adequately implementing its policies and procedures associated with the 10 CFR Part 21 program. No findings of significance were identified.

11. Entrance and Exit Meetings

On August 14, 2023, the NRC inspection team discussed the scope of the inspection during an entrance meeting with Mr. Victor Apostolescu, Velan's Vice President of QA, and other members of Velan's management and technical staff. On August 18, 2023, the NRC inspection team presented the inspection results and observations during an exit meeting to Mr. Apostolescu and other members of Velan's management and technical staff. The attachment to this report lists the attendees of the entrance and exit meetings, as well as those individuals whom the NRC inspection team interviewed.

ATTACHMENT

1. ENTRANCE/EXIT MEETING ATTENDEES

Name	Position	Affiliation	Entrance	Exit	Interview
Victor Apostolescu	Vice President Quality Assurance (QA)	Velan Inc. (Velan)	X	X	X
Carl Correa	Quality Audit Manager	Velan	X	X	X
Cristina Minescu	Manager, QA, Plants 1, and 2	Velan	X	X	X
Madeline Murphy	Manager, Analytical Engineering	Velan	X	X	X
Taizo Ikeda	Designer	Velan			X
Marc Bouchard	Director of Project Engineering	Velan			X
Chris Ulley	Project Group Leader	Velan		X	X
Nicholas Lourdel	Director of Design	Velan			X
Mircea Moldovan	Non-Destructive Examination Inspector	Velan			X
Pankaj Patel	Welding Foreman	Velan			X
Pascal Roussy	QA Director	Velan	X	X	
Ben Abdelhanin	Director of Quality Control	Velan	X	X	
Jean-Philippe Leboeuf	Senior General Manager	Velan		X	
Aaron Armstrong	Inspection Team Leader	Nuclear Regulatory Commission (NRC)	X	X	
Yamir Diaz-Castillo	Inspector	NRC	X	X	
Frankie Vega	Inspector	NRC	X	X	
Odunayo Ayegbusi	Inspector	NRC	X	X	

Kerri Kavanagh	Branch Chief	NRC		X*	
Gabriele Giobbe	Canadian Nuclear Safety Commission Inspector	CNSC	X	X	
*Remote participation					

2. INSPECTION PROCEDURES USED

- Inspection Procedure (IP) 43002, “Routine Inspections of Nuclear Vendors,” dated February 10, 2023
- 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

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
99900061/2017-201-01	CLOSED	Violation	10 CFR Part 21
99900061/2017-201-02	CLOSED	Nonconformance	Criterion IV
99900061/2017-201-03	CLOSED	Nonconformance	Criterion VII

3. DOCUMENTS REVIEWED

Quality Assurance Procedures (QAP)

- “VEL-PS-059, “Procurement of Calibration Services,” Revision 15, dated December 6, 2022
- VEL-PS-086, “Purchase of Laboratory Services,” Revision 4, dated March 29, 2022
- VEL-QCI-8689, “Inspection and Test Plan,” Revision 0, dated September 18, 2015
- VEL-QCI-462, “Manufacturing and Inspection Instruction,” Revision 8, dated March 16, 2009
- VEL-QC-155 “10CFR50 Appx B Quality Manual,” Revision 26, dated March 15, 2022
- VEL-QCI-1123 “Commercial Grade Dedication Procedure,” Revision 20, November 14, 2017
- QCI-6788, “Guidance on Commercial Grade Surveys and Their use for Dedication of

Items," Revision 1, dated January 17, 2023

- VEL-QC-737, "Valve Sketches," Revision 2, dated May 23, 2014
- VEL-QC-700 "Calibration Procedure Manual," Revision 21, dated April 4,2022
- Vel-P-881, "Identification and Control of Material," Revision 4, dated August 25, 2022
- VEL-QCI-1138, "Trade Code Marking for Bar Stock and Pipes," Revision 2, dated July 7, 2011
- QCI-363, "Guide for Sampling Inspection ANSI Z1.4," Revision 9, dated April 19, 2002
- VEL-QCI-884, "Positive Material Identification," Revision 16, dated November 24, 2021
- EWI-0500, "Critical Component Evaluation Table," dated June 26, 2015
- American Petroleum Standard No. 609, "Butterfly Valves: Double-flanged, Lug and Wafer-type, and Butt-welding Ends," dated April 2021
- ASME B16.34-2020, "Valves - Flanged, Threaded, and Welding End"
- ASME Section III Code Data Report for a ¼" CL 800 Bolted Bonnet Gate Valve, ASME Section III 1989 Edition, Code Class 3, dated December 18, 2020
- ASME Section III Code Data Report for a 1 ½ CL 600 Boles Cover Piston Check Valve, ASME Section III 1974 Edition, Code Class 3, dated March 30, 2023
- ASME Section III Valve Data Package Index for a 16" 150 BF LG Butterfly Valve, Certificate No. 29411, dated September 17, 2020
- ASME Section III Valve Data Package Index for a ¼" CL 800 Bolted Bonnet Gate Valve, Certificate No. 201038, dated December 18, 2020
- ASME Section III Valve Data Package Index for a 1 ½ CL 600 Boles Cover Piston Check Valve, ASME Section III 1974 Edition, Code Class 3, Certificate No. 231001, dated March 30, 2023
- AVL-1, "Current Status of Approved Vendors of Materials and Services for Pressure Containing Parts for A.S.M.E Section III, Division 1 Valves," Revision 93, dated May 25, 2023
- EWI-0011, "Engineering Change Order," dated November 6, 2009
- EWI-0012, "Engineering Change Notice," dated July 21, 2009
- EWI-0226, "Qualification of Engineering Personnel: Approval, Independent Review and Certification," Revision B, dated March 8, 2019
- EWI-0500, "Critical Component Evaluation Procedure," dated April 19, 2013

- EWI-0600, “Control of Software,” dated September 30, 2013
- EWI-3406, “Configuration, Assembly and Detail Drawings for Nuclear and Safety-Related Large Gate, Globe and Check Valves”, dated September 16, 2013
- EWI-4001, “Design Reports,” dated June 18, 2010
- EWI-4002, “Reconciliation of Design Documents with As-Built Drawings and Data,” Revision A, dated February 10, 2013
- EWI-4100, “Technical Calculations,” Revision D, dated September 25, 2014
- VEL-NDT-533B, “Liquid Penetrant Examination for Nuclear Valves, Nuclear Valve Components, Welds, Hardfacings, and Claddings,” Revision 10, dated March 3, 2022
- VEL-NDT-537B, “Liquid Penetrant Examination for Nuclear Valve Components, Welds, Hardfacings and Claddings,” Revision 6, dated March 3, 2022
- VEL-P-826, “Postweld Heat Treatment,” Revision 17, January 12, 2022
- VEL-PS-101, “High Quality Water Verification,” Revision 4, dated January 26, 2021
- VEL-QC-730, “Chemical Analysis Using Spectrotest TXC25/TX03 Optical Emission Spectrometer,” Revision 3, dated February 22, 2013
- VEL-QCI-464, “Written Practice for Qualification and Certification of Non-Destructive Testing Personnel,” Revision 35, dated July 2022
- VEL-QCI-474, “Quality Control Program for Actuators and Accessories,” dated February 21, 2007
- VEL-QCI-491, “Procedure for the Control of Penetrant Systems,” Revision 8, dated January 20, 2022
- VEL-QCI-966 (ROT), “Testing of Power Actuated Valves Rotork IQ Series Electric Actuators,” Revision 6, dated May 4, 2021
- VEL-QCI-6345, “ASME Section III Material Upgrade Procedure,” Revision 5, dated January 5, 2023
- Welding Procedure Specification (WPS) No. APA-08213, ASME Section IX, Plasma Arc Welding, Hardfacing Overlay, dated June 9, 2023
- Welder or Welding Operator Performance Qualification for A. Pavico, Stamp WA-42, Test WPS No. APA-01211, Revision 0, WPQ No. 042PA-1X1-02, dated January 18, 2021.
- Quality Assurance Requirements Sheet QARS-748, Rev. 14, dated April 18, 2019

Design Control and Commercial Grade Dedication (CGD)

- CGD package for a 2” 1500 bonnetless globe valve supplied to Entergy Operations (Velan Order No. SO00039311): shop orders, Certificate of Conformance, dedication, and inspection forms for the following parts – body, stem, disc, seat
- CGD package for a 1 1/2” CL. 600 Bolted Cover Piston Check Valve supplied to Entergy Operations (Velan Order No. SO00039835): shop orders, Certificate of Conformance, dedication, and inspection forms, for the following parts: body, cover disk, disk insert, body nut, and body stud
- Commercial Calibration Service Vendor Dedication dated June 9, 2023
- Commercial Calibration Service Vendor Dedication dated April 13, 2023
- Commercial Calibration Service Vendor Dedication dated June 21, 2023
- Shop order No. S10007271 for a disk union, dated September 26, 2018
- Shop order No. SO004027S for bonnetless valve packing flange
- Shop order No. S10011558, dated February 26, 2021
- Shop order N. S10012299, dated March 08, 2023
- Shop order No. S10011889, dated July 12, 2022
- Certificate of Conformance No. 231005
- Certificate of Conformance No. 231001
- Design Report No. DR-1646, “Carbon Steel and Stainless Steel ½”-2” Pressure Class 800 ASME Section III Class 1 Socket Welding End Bolted Bonnet Gate Valves,” Revision 3, dated July 26, 1999
- Design Report No. DR-3566, “16” Class 150 Triple Offset Butterfly Valve (Nuclear Safety Related) Actuator Limitorque SMB-00-10/HBC-3,” Revision B, dated September 4, 2020
- Design Specification No. VNDS-001, “Design Specification for Nuclear Class 1 Gate, Globe and Piston Check Valves,” Revision 7, dated September 21, 2022
- Drawing No. 050-0032033-N01, “Bonnetless Inclined Globe Valve,” Revision C
- Drawing No. 050-0029411-D01, “Torqseal Triple-Offset Butterfly Valve, Revision G
- Engineering Change Order (ECO) No. 826880 for an addendum to generic Velan nuclear spec, dated December 12, 2019
- ECO No. 827871 for a revision to GT-08720,” dated April 7, 2020

- ECO No. 828081 for a revision to Sx and Stem axis position, update assembly, and configuration drawings, dated August 17, 2020

- Engineering Work Instruction (EWI) - 0010, “Engineering Change Request,” dated July 22, 2009

Internal Audit

- Velan Internal Audit Report for 2022, dated December 15, 2022

- Velan Internal Audit Report for 2021, dated January 14, 2022

- Internal Audit Report Audit of Audit Function, dated February 13, 2023

- Internal Audit Report Audit of Audit Function, dated March 3, 2022

- Authorized Nuclear Inspector Certificate of Inspection of a 1-1/2” bolted Cover Piston check valve, dated March 31, 2023

Supplier Oversight

- Velan’s Acceptance of NIAC Audit Report dated January 31, 2022

- Velan’s Acceptance of NIAC Audit Report dated October 26, 2022

- Annual Vendor Assessment, dated December 2, 2022

- Velan’s CGD of a calibration supplier, dated June 21, 2023

- Vendor Survey Checklist Actuators and Accessories, Revision 7, dated January 11, 2019

- Vendor Survey checklist for NED services, dated November 25, 2022

- Audit of casting and heat treatment services, dated March 1, 2023

- Annual Vendor assessment of casting and heat treatment services, dated March 8, 2023

- Audit of Machining services, dated March 11, 2022

- Annual Vendor assessment of Machining services, dated February 14, 2022

- Procedure Qualification Record (PQR) No. 230523-1 for WPS No. APA-08213, dated June 9, 2023

- PQR No. 211014-2 for WPS APA-08213, dated November 15, 2021

- PQR No. 211014-2 for WPS APA-08213, dated November 15, 2021

- PQR No. 211014-3 for WPS APA-08213, dated November 15, 2021
- Audit of casting, heat treatment, machining and testing services, date March 23, 2023
- Audit of casting, heat treatment, machining and testing services, date March 15, 2022
- Vendor Survey Checklist for NDE Services and repair, dated November 15, 2023
- Audit of Vendor services for NDE and repair, dated Mach 23, 2023
- Audit of Vendor Fording, heat-treating, and machining service, dated January 31, 2018
- Velan's Acceptance of NIAC Audit Report, dated September 2, 2022
- Velan's Acceptance of NIAC Audit Report, dated December 2022

Test Control Documents

- VEL-NDT-640B, Hydrostatic Testing of Nuclear Gate, Globe and Check Valves, Revision 9, dated August 19, 2020
- Hydrostatic Test Report, 1-1/2" bolted Cover Piston check valve, dated January 24, 2023
- Hydrostatic Test Report, 16" Butterfly Valve, dated September 17, 2020
- Hydrostatic Test Report, 1/4" Bolted Bonnet Gate Valve, dated December 17, 2020
- Hydrostatic Test Report for a ¼" CL 800 Bolted Bonnet Gate Valve, dated December 17, 2020
- Hydrostatic Tests Report for a 1 ½ CL 600 Bolted Cover Piston Check Valve, dated January 24, 2023
- Inspection and Test Plan for Component No. L20-0CP02-XCDA, SO0029411, Revision 0, dated January 21, 2020
- Electric Motor Actuated Valve Test Report for a 16" 150BF LG Butterfly Valve, Limitorque SMB-00-10/HBC-3, Voltage 460 AC, Actuator Serial No. L1252339, 60 Hz Frequency, dated September 17, 2020
- Non-Destructive Examination Report for Order No. SO0028485, Item No. 0001, Liquid Penetrant (PT) Procedure Used VEL-NDT-533B, Revision 9
- Non-Destructive Test Report for Velan Order No. SO0029411, Item No. 0001, PT Procedure Used VEL-NDT-537B, Revision 5
- Non-Destructive Examination Report for Order No. SO0039835, Item No. 0001, PT Procedures Used VEL-NDT-533B/10 and VEL-NDT-537B/6
- Chemical Analysis Report No. OES-23-P1-001, Part No. 5019-306-013-N, Heat Code 22E038, dated January 17, 2022

- Chemical Analysis Test Report No. OES-23-P1-003, Part No. 5019-308-013-N, Heat Code 22E038, dated January 17, 2022

- Chemical Analysis Test Report No. OES-23-P1-004, Part No. 00L9-KLD-013-N, Heat Code 22E351, dated January 19, 2022

- Chemical Analysis Report No. OES-23-P1-005, Part No. 00G1-JLD-013-N, Heat Code 22E351, dated January 19, 2022

- Chemical Analysis Report No. OES-23-P1-006, Part No. 5029-118-013-N, Heat Code 22E351, dated January 19, 2022

- Test Certificate No. G220000 for a Raw Body, Heat Code 22E038, Serial No. R50001642-1, dated December 15, 2022

- Test Certificate No. G219999 for a Forged Disc, Heat Code 21E351, Serial No. R50001622-1, dated December 15, 2022

Measuring and Test Equipment Documents

- Calibration record for Pressure Gauge No. G16-11865

- Certificate of Calibration for a Digital Thermometer, dated June 1, 2022

- Calibration record for Individual gage (G19-00867)

- Calibration record for Individual gage (pressure test gage - G16-11169)

- Calibration record for individual Gage (PMI Machine - G21-13492)

- Calibration record for individual gage (Rockwell testing machine - G-17-04114)

- Calibration record for individual gage (Digital caliper – G-22-13714)

- Certificate of Calibration No. 395742-01, dated June 19, 2023

- Certificate of Calibration No. 2868946, dated July 18, 2023

- Certificate of Calibration No. 915645, dated May 10, 2023

- Calibration Report of Defective/Lost M&TE, Multifunction process calibrator, dated February 21, 2023 (G17-12685-2023-DGR)

- Calibration Report of Defective/Lost M&TE, Mass Flow Meter Digital, dated March 16, 2023 (G17-12948-2023-DGR)

- Calibration Report of Defective/Lost M&TE, Mass Flow Meter Digital, dated March 14, 2023 (G17-12951-2023-DGR)

- Calibration Report of Defective/Lost M&TE, Hexagon, absolute arm, dated June 1, 2023 (G17-14311-2023-DGR)

- Certificate of Calibration No. CN143-25571-795, dated May 23, 2023

- Certificate of Calibration No. RAC0060132100-GOS, dated May 23, 2023

Purchase Order (POs)

- Duke Energy's Purchase Order (PO) No. 03136347 for a 30", 36", and 42" Butterfly Valves, Section III of the ASME B&PV Code, Class 3, 2001 Edition, 2003 Addenda, Revision 3, dated January 26, 2022

- Florid Power & Light's PO No. 02402622 for a ¼" Bolted Bonnet Gate Valve, Section III of the ASME B&PV Code, Class 3, 1989 Edition No Addenda, dated October 30, 2019

- Dominion Energy's Purchase Order (PO) No. 70365022 for 16" Velan Butterfly Valves, dated December 27, 2019

- Velan's PO No. P10009997 for a 30" raw body, 36" raw body, and 42" raw body, ASTM-A182, F316, dated January 20, 2022

- Velan's PO No. P10010016 for a variety of forged discs, ASTM-A182, F316, Revision 1, dated January 21, 2022

- Velan's PO No. 10669467 for a 2" bonnetless inclined globe valve, Section III of the ASME B&PV Code, Class 2, 1974 Edition and Addenda, dated May 4, 2022

- Velan's PO No. S50001708 for chemical and mechanical analysis required by SA-182, F316, Revision 2, dated December 1, 2022

- Purchase Order (PO) No. 10669467, 2" globe valve, dated May 4, 2022

- Velan PO No. 10011876, Operator C/W Gear Box HBC-3, Revision 4, dated July 19, 2023

- Velan PO No. 30007252, 3-" Diameter Bar, Revision 0, dated May 11, 2023

- Velan PO No. 10010228, LMSB NAMCO EA170-31302-CCW, Revision 1, dated May 6, 2022

- Velan PO No. P10012349, 1-1/2-" Diameter Bar, Revision 0, dated June 13, 2023

- Velan PO No. E00005155, Technical Software Maintenance Renewal, Revision 0, dated March 14, 2022

- PO No. 4500662190 for replacement parts for check valves, dated February 23, 2021

- PO No. P10011900, 1" 800 Raw Wedge, dated March 6, 2023

- PO No. P10010067, 2" 600 Raw Body, dated January 25, 2022
- PO No. 7398960, for a stem/disc, dated December 7, 2022
- PO No. P30006197, 4" 150 Raw Body, dated March 15, 2022
- PO No. P30006108, 8" 300 Raw Body, dated February 9, 2022
- PO No. P10011840, 6"150 Ball, dated February 16, 2023
- PO No. E10009614, dated June 20, 2023
- PO No. 4500726341, dated October 29, 2021
- PO. No. E10009778, dated August 1, 2023
- PO No. 10660693, dated May 26, 2022
- PO No. 233285, dated August 15, 2023
- PO No. P10006198, dated January 2, 2023

Deviation Reports

- Deviation report No. 100004244, dated July 14, 2023
- Deviation report No. 100001971, dated March 8, 2023
- Deviation Report No. 1000003840, dated March 9, 2023
- Deviation Report No. 100001843, dated February 15, 2021
- Deviation Report No. 100003826, dated March 14, 2023
- Deviation Report No. 21559, dated May 9, 2022
- Deviation Report No. 400000908, date March 21, 2023
- Deviation Report No. 1003328, dated March 6, 2023

Certificates of Compliance

- Certificate No. 1-1413, Certified Material Test Report (CMTR) for a Valve Body, Material Specification ASME SA 182, Grade F316, Heat No. 22E038, dated December 21, 2022
- Certificate No. 1-1414, CMTR for a Valve Disc, Material Specification ASME SA 182, Grade F316, Heat No. 21E351, dated February 16, 2023

- Certificate No. 1-1423, CMTR for a Valve Body, Material Specification ASME SA 182, Grade F316, Heat No. 22E038, dated January 17, 2023

- Certificate No. 1-1426, CMTR for a Valve Body, Material Specification ASME SA 182, Grade F316, Heat No. 22E038, dated January 17, 2023

- Certificate No. 1-1431, CMTR for a Valve Disc, Material Specification ASME SA 182, Grade F316, Heat No. 21E351, dated January 20, 2023

- Certificate No. 1-1432, CMTR for a Valve Disc, Material Specification ASME SA 182, Grade F316, Heat No. 21E351, dated January 20, 2023

- Certificate No. 1-0974, CMTR for a Valve Body, Material Specification ASME SA 182, Grade F316, Heat No. R4252, dated December 14, 2020

- Certificate No. 1-0975, CMTR for a Valve Bonnet, Material Specification ASME SA 182, Grade F316, Heat No. S11703, dated December 14, 2020

- Certificate of Compliance for Data Package No. 201038, Bolting 1" (25 mm) and less, SO00228485, dated December 18, 2020

- Certificate No. 1-0976, CMTR for a Valve Wedge, Material Specification ASME SA 351, Grade CF8M, Heat No. 13648, dated December 14, 2020

- Certificate of Compliance No. 29411 for a 16" 150BF LG Butterfly Valve, Design Specification B16.34 and API-609, SO0029411, dated September 17, 2020

- Certificate of Conformance No. 201038 for a ¼" CL 800 Bolted Bonnet Gate Valve, ASME Section III 1989 Edition, Code Class 3, dated December 18, 2020

- Certificate of Conformance No. 231001 for a 1 ½ CL 600 Bolted Cover Piston Check Valve, ASME Section III 1974 Edition, Code Class 3, dated March 30, 2023

Corrective Action Reports (CARs) Reviewed During the NRC Inspection

- CAR No. 22-155-P3-1, dated November 16, 2022

- CAR No. 22-09-P1-7, dated August 5, 2022

- CAR No. 23-10-P4-1, dated March 29, 2023

CARs Generated During this Inspection

- CAR No. 2023-NRC-01, dated August 16, 2023

- CAR No. 2023-NRC-02, dated August 16, 2023

- CAR No. 2023-NRC-03, dated August 17, 2023

- CAR No. 2023-NRC-04, dated August 17, 2023

10 CFR Part 21 Records

- 10 CFR Part 21 Evaluation dated May 8, 2019
- 10 CFR Part 21 Evaluation dated May 22, 2019
- 10 CFR Part 21 Evaluation dated October 21, 2022

Training and Qualification Records

- Lead Auditor Training and Qualification for Cristina Minescu, dated December 9, 2022
- Lead Auditor Training and Qualification for Carl Correa, dated December 9, 2022
- Anjitkumal Patel, Hydrostatic Test Inspector, dated December 9, 2022
- Demetrios Georgousis, Quality Control Inspector
- Ishtiaq Mian, Calibration Technician
- Pritesh Patel, Receipt Inspector
- Parveen Kumar, Level II for Liquid Penetrant Testing (PT), Magnetic Particle Testing (MT), Ultrasonic Inspection (UT), and Visual Inspection
- Mircea Moldovan, Level II for PT, MT, UT, and Visual Inspection
- Lead Auditor Training and Qualification for Joyce Hamman, dated February 7, 2022