

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
REGION IV

Report No. 99900346/79-01

Program No. 51300

Company: Velan Valve Corporation  
Avenue C Griswold Industrial Park

Inspection at: Williston, Vermont 05495

Inspection Conducted: May 21-24, 1979

Inspector: William D. Kelley  
William D. Kelley, Contractor Inspector  
Vendor Inspection Branch

June 8, 1978  
Date

Approved by: for D. E. Whittsell  
D. E. Whittsell, Chief, Components Section I,  
Vendor Inspection Branch

June 8, 1978  
Date

Summary

Inspection on May 21-24, 1979 (99900346/79-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B and applicable codes and standards including design input; procedure, document and drawing control; control of other special processes; control of special processes - heat treatment; equipment calibration; and evaluation of supplier performance. Also performed general review of vendor's activities and reviewed data pertaining to actual weights of valves versus weights given on drawings. The inspection involved twenty-seven (27) inspector-hours on site by one (1) NRC inspector.

Results: In the six (6) areas inspected, no deviations or unresolved items were identified in five (5) areas. The following were identified in the remaining area.

Deviation: Equipment Calibration. Contrary to Criterion V of 10 CFR Appendix B, and QC procedure number VELW-QC-156.11, Revision 1, calibration labels were not affixed to the ten (10) go/no-go gages inspected, and the meters on two welding consoles had not been calibrated. (See Notice of Deviation)

1557 309

7908130 382

## Details Section

A. Persons ContactedVelan Valve Corporation (VVC)

- \*F. Filteau, Metrologist
- \*E. I. Francois, Corporate Manager of Quality Assurance
- \*D. J. Haseldine, Engineering Supervisor
- \*M. Huck, Welding Engineer
- \*P. Strelczyk, Vice President and Plant Manager  
of Plant No. 3
- \*L. H. West, Purchasing Agent
- \*D. A. Winton, Quality Control Manager

Kemper Insurance Company

G. P. Odom, Authorized Nuclear Inspector (NB Number 6986)

\*Denotes those persons who attended the exit interview.

B. General Review of Vendor's Activities

1. The ASME issued the following Certificates of Authorization to VVC to use their symbols:

<u>Certification No.</u>	<u>Symbol</u>	<u>Product</u>
2117	N	Class 1, 2 & 3 Valves and Fluid Conditioning Devices
2118	NPT	Class 1, 2 & 3 Valve Parts and Appurtenances and Fluid Conditioning Devices

These certificates expire on June 9, 1981.

2. The authorized inspection agency is Kemper Insurance Company.  
  
The authorized nuclear inspector is a full time inspector in the Williston plant.
3. VVC contribution to the nuclear industry represents approximately forty-six (46) percent of its total production.

4. The Velan Engineering Companies Plattsburg, New York, has been closed and military and commercial orders transferred to the Williston Vermont plant. All nuclear orders for domestic nuclear facilities will be processed in this facility.
5. The Vice President and Plant Manager of VVC reported to the Williston plant in January, 1979.
6. A Velan Engineering Companies interoffice Memorandum dated December 18, 1979, announced to the Velan Employees that a partnership had been formed with Deutsche Babcock.
7. The inspector reviewed the data at the Velan Engineering Ltd. (VEL), Montreal, Que., Canada, plant regarding the actual and calculated weights of valves versus the weights given on the drawings. VEL has reviewed all orders back to 1969 and notified their customers where the actual or calculated weights were substantially higher than the weights given on the drawings.

C. Design Input

1. Objectives

The objectives of this area of the inspection were to verify that:

- (a) Procedures have been prepared and approved by the vendor which prescribes a system for the control of design inputs in a manner consistent with NRC rules and regulations, contract requirements, and the vendor's commitments.
- (b) The design input procedures are being properly and effectively implemented.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 2;
  - (1) QC Procedure VELW-QC-156, Quality Assurance Program - Organization Charts, and
  - (2) QC Procedure VELW-QC-1561, Design Control,
 to verify that the vendor has established procedures which prescribes a system for control of design inputs.
- b. Review of procedures referenced in paragraph a., to verify that they had been prepared by the designated authority, approved by management, and reviewed by QA.

557 311

- c. Interviews with personnel to verify they are knowledgeable in the procedures applicable to design input.

3. Finding

- a. The inspector verified that:

- (1) Procedures have been prepared and approved by the vendor which prescribes a system for the control of design inputs which is consistent with NRC rules and regulations, contract requirements, and the vendor's commitments.
- (2) The design input procedures are properly implemented.

- b. Within this area of the inspection no deviations or unresolved items were identified.

D. Procedure, Document, and Drawing Control

1. Objectives

The objectives of this area of the inspection were to ascertain whether procedures had been developed and properly implemented to control the review, approval, release and issuance, of procedures, documents and drawings, in a manner which is consistent with NRC rules and regulations, contract requirements, and the vendor's commitments.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 2;

- (1) QC Procedure VELW-QC-156, Quality Assurance Program - Organization Charts.
- (2) QC Procedure VELW-QC-156.1, Design Control, and
- (3) QC Procedure VELW-QC-156.4, Document Control,

to verify that the vendor has established procedures which prescribe a system for procedure, document, and drawing control.

- b. Review of the procedures referenced in paragraph a., to verify that they had been prepared by the designated authority, approved by management, and reviewed by QA.

- c. Review of the procedures referenced in paragraph a., to verify that they provide for the identification of personnel responsible for preparing, reviewing, approving, and issuing procedures, documents, and drawings; and that the review and approval of significant changes are performed by the same personnel. Also to ascertain whether minor changes to design drawings that do not require design approval, are identified.
- d. Review of the following drawings;
  - (1) P3-6040-N6, Revision B, 8"-16" Gate Valve, 150-600#,
  - (2) 8890-047, Revision A, BB Gate Valve Assembly, 12" 150-600#, and
  - (3) P3-6040-N19, Revision A, 2½" to 6" Globe Valve Bolted Bonnet Forged, 900#-1500#,

to verify that the distribution list is current, and that the related documents are identified, accessible, and are being used.
- e. Interviewed personnel to verify whether they are knowledgeable in the procedures applicable to procedure, document, and drawing control.

### 3. Findings

- a. The inspector verified that procedures have been developed, and were properly implemented, to control the review, approval, release, and issuance of procedures, documents, and drawings, in a manner consistent with NRC rules and regulations, contract requirements and the vendor's commitments.
- b. Within this area of the inspection no deviations or unresolved items were identified.

## E. Control of Other Special Processes

### 1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures have been prepared and approved by the vendor to prescribe a system for the control of special processes (other than welding, nondestructive testing, and heat treating) which is consistent with the vendor's commitments, contract requirements, and NRC rules and regulations.
- b. The special processes are accomplished by qualified personnel using detailed written procedure that have been approved or qualified as appropriate.

557 313

## 2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 2;
  - (1) QC VELW-QC-156, Quality Assurance Program,
  - (2) QC VELW-QC-156.6, Control of Fabrication Process Operation and Routing Sheets, and
  - (3) QC VELW-QC-156.8, Examination, Tests, and Inspections,to verify that the vendor has established procedures which prescribes a system for the control of special processes.

- b. Review of the following procedures;
  - (1) QC Procedure VEL-P-611, Revision 4, Cleaning and Packaging of Stainless Steel Valves and Valve Components,
  - (2) QC Procedure VEL-QCI-529, Revision 0, Special Test Procedure for Testable Open Swing Check, and
  - (3) QC Procedure VEL-QCI-449, Revision 2, Instructions for Hydrostatic and Functional Testing of Valves,to verify requirements have been established for identifying special processes, qualifying the implementing procedure, training and/or certification of personnel performing special processes, documentation of work performance when special processes are used.

- c. Review of the special process procedures listed in paragraph b. above, to verify that the special process procedures are followed by trained and/or certified personnel, in accordance with the vendor's commitments.
- d. Interviews with personnel to verify they are knowledgeable in the procedures applicable to special processes.

## 3. Findings

- a. The inspector verified that:
  - (1) Procedures have been prepared and approved by the vendor which prescribes a system for the control of special processes (other than welding, nondestructive testing, and heat treating) which is consistent with the vendor's commitments,

contract requirements, and the NRC rules and regulations.

- (2) The special procedures are being properly implemented by qualified personnel.

F. Control of Special Processes-Weld Heat Treatment

1. Objectives

The objectives of this area of the inspection were to verify that the heat treatment related to welding is specified, and that it is performed in accordance with the NRC rules and regulations, contract requirements and the vendor's commitments.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. The review of the ASME accepted Quality Assurance Manual, Revision 2; QC Procedure VELW-QC-156.6, Control of Fabrication Process, Operation and Routing Sheets, to verify that the vendor has established procedures which prescribe a system for weld heat treatment.
- b. Review of the following process procedures;
  - (1) VEL-P-657, Revision 8, Process Heat Treatment of Martinitic Stainless Steel Stems, and
  - (2) VEL-P0641, Revision 9, Heat Treatment of Precipitation Hardening Stainless Steel,

to verify that they had been reviewed, approved, and properly qualified, prior to issuing to production.
- c. Reviewed the documents referenced in paragraph b., to verify that the heat treatment of welds would be performed in accordance with the procedure requirements for heat-up and cool-down rates, and that the time-at-temperature were being recorded.
- d. Interviews with personnel to verify they are knowledgeable in the procedures applicable to weld heat treating.

3. Findings

- a. The inspector verified that the heat treatment procedures, relative to welding, was consistent with the NRC rules and regulations, contract requirements, and the vendor's commitments.

However, there has been no heat treatment of nuclear components performed at VVC to date.

- b. Within this area of the inspection, no deviations or unresolved items were identified.

G. Equipment Calibration

1. Objectives

The objectives of this area of the inspection were to verify that:

- a. Procedures had been prepared and approved by the vendor which prescribes a system to assure that tools, gages, instruments, and other measuring devices used in activities affecting quality are properly controlled, calibrated, and adjusted at specified periods to maintain accuracy within specified limits in a manner which is consistent with NRC rules and regulations, contract requirements and the vendor's commitments.
- b. The equipment calibration procedures are properly and effectively implemented, and the results properly documented.

2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 2; QC Procedure VELW-QC-156.11, Calibration of Measurement and Test Equipment, to verify the vendor had established a procedure which prescribes a system for the control of equipment calibration.
- b. Review of the procedure listed in paragraph a., to verify that it had been prepared by the designated authority, approved by management, and reviewed by Quality Assurance. Also to verify that the procedure identified the items to be calibrated, the frequency and method of calibration, and the method of documenting the calibration status.
- c. Review of equipment recall schedule and calibration records to verify that the calibration results, calibration interval, procedures, and the standards to be use for calibration are provided.
- d. Tracking fifteen (15) instruments, gages, and meters through the calibration process to verify that they were properly calibrated, certified, and the calibration status identified.



### 3. Findings

#### a. Deviation

See Enclosure, "Notice of Deviation."

b. No unresolved items were identified in this area.

## H. Evaluation of Supplier Performance

### 1. Objectives

The objectives of this area of the inspection were to verify that procedures had been prepared and approved by the vendor to prescribe a system for evaluation of suppliers performance which is consistent with NRC rules and regulations, and the vendor's commitments in the ASME accepted Quality Assurance Program. Also, to verify that the procedures for evaluation of supplier's performance is being properly and effectively implemented by the vendor.

### 2. Method of Accomplishment

The objectives of this area of the inspection were accomplished by:

- a. Review of the ASME accepted Quality Assurance Manual, Revision 2, QC Procedure VELW-QC-156.2, Procurement Control and Receiving Inspection Materials Parts and Services, to verify that the vendor had established procedures for the evaluation of suppliers, which is consistent with NRC rules and the Code and contract requirements.
- b. Review of six (6) sets of documents applicable to three (3) suppliers to verify that the procedures, and necessary procurement documents, were available to the persons responsible for performing the quality activities, and that the procedures were being properly implemented.
- c. Interviews with personnel to verify whether they are knowledgeable in the procedures applicable to evaluation of suppliers' performances.

### 3. Findings

a. The inspector verified that:

- (1) Procedures had been prepared and approved by the vendor, which prescribes a system for the evaluation of suppliers which is consistent with NRC rules and regulation, contract requirements and the vendor's commitments.

(2) The procedures for the evaluation of supplier's performance is being properly and effectively implemented by the vendor.

b. Within this area of the inspection no deviations or unresolved items were identified.

I. Exit Interview

At the conclusion of the inspection on May 24, 1979, the inspector met with the company's management, identified in paragraph A, for the purpose of informing them as to the results of the inspection. During this meeting each identified deviation was discussed and the evidence which supported the findings were identified.

The company's management acknowledged the findings and supporting evidence as being understood, but had no additional comments.

557 318