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

Report No. 99900316/79-01 Program No. 51300

Company: Gould Incorporated
Valve and Fitting Division
6300 W. Howard Street
Chicago, Illinois 60648

Inspection Conducted: June 26-29, 1979

Inspector: R. E. Oller 7/17/79
R. E. Oller, Contractor Inspector Date
Vendor Inspection Branch

Approved by: for D. M. Hunnicutt 7/17/79
D. M. Hunnicutt, Chief, Components Section II Date
Vendor Inspection Branch

Summary

Inspection on June 26-29, 1979 (99900316/79-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B criteria, other NRC requirements, and applicable codes and standards including: action on previous inspection findings, review of vendor activities, nonconformances and corrective action, training, material identification and control, and testing of completed products. The inspection involved twenty five (25) inspector-hours on site.

Results: In the six (6) areas inspected, no deviations were identified.

The following unresolved item was identified.

Unresolved Item

Testing of Completed Products: The hydrostatic test procedure for valves requires that any seat leakage will be measured, recorded and reported. Discussions with the QA Inspector, performing the seat test, established that seat leakage is not measured nor recorded. The practice is reject all valves showing any seat leakage and tag them "Hold for QA Resolution". Gould management indicated they would review this matter and revise the procedure if such revision is considered appropriate.

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DETAILS SECTION

A. Persons Contacted

*R. Haines, QA Manager
P. Ioakimidis, Stock Room Group Leader
*S. Kunka, Vice President of Operations
*M. McKay, Plant Superintendent
*R. Malone, QA Engineer
*A. Pietramale, Manager of Product Engineering
G. Simpson, QA Inspector
B. Trinidad, QA Receiving Inspector
R. Williams, QA Inspector

*Attended the Exit Meeting.

B. Action on Previous Inspection Findings

1. (Closed) Deviation A (Report No. 78-01): Failure to include in Purchase Orders No. C-40425 and No. C-34846 for calibration services, the quality requirement that certificates of calibration be furnished for calibration of optical comparators, and hardness testers and their standards.

The inspector found that in accordance with Gould's response letter dated January 9, 1979, paragraph 12.5 of the QA Manual was revised to include the requirement that "Purchase Orders shall include instructions to supply Certificates of Calibration". This change was accepted by the ANI prior to its implementation.

2. (Closed) Deviation B (Report No. 78-01):

Failure to include Receiving Inspection Reports in the Receiving Inspection Packages for internal orders No. VM-22 and VM-11.

The inspector found that in accordance with Gould's response letter dated January 9, 1979, procedure QCP-2 has been revised to include instructions in preparation of Receiving Inspection Packages. Review of three (3) current packages established that they contained the Receiving Inspection Reports.

C. Review of Vendor's Activities

1. Objective

The objective of this area of the inspection was to assess the vendor's activities and their impact on future NRC inspections.

2. Method of Accomplishment

The preceding objective was accomplished by:

a. Discussions with cognizant personnel.

b. Review of the QA Manual.

c. Review of the following ASME Certificates of authorization:

(1) No. N-1357 for N Class 1, 2, & 3 valves.

(2) No. N-1358 for NPT Class 1, 2 and 3 valve parts and appurtenances.

(3) Quality Systems Certificate (Materials) No-1359.

d. Review of a list of Gould Valve and Fitting Division's customers to whom ASME Class 1, 2 or 3 valves and nuclear fittings were supplied during 1978 and 1979.

3. Findings

a. Deviations from Commitments

None

b. Unresolved Items

None

c. Other Findings

(1) The Gould Inc., Valve and Fitting Division manufactures ASME Class manual operated instrumentation and manifold valves below 2" nominal pipe size, of austenitic stainless steel, Inconel and Monel materials, up to 2500 lb. pressure class. They also manufacture small diameter pipe fittings of carbon steel, low alloys, high alloys, copper and copper alloys materials. Fittings are manufactured at Plant No. 1 while N-stamped valves are manufactured at Plant No. 3.

(2) During 1978 and 1979 the plants supplied nuclear class valves and fittings to fourteen (14) domestic customers consisting of architect-engineers, constructors, electric utility companies and a nuclear steam system supplier.

(3) The Authorized Inspection Agency is Factory Mutual Insurance Company. The ANI visits Plant No. 3 on a notification basis.

(4) The Gould Valve and Fitting Division has valid N, NPT and Quality Systems authorizations. These certificates expire on March 1, 1982.

D. Nonconformances and Corrective Action

1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with applicable NRC and ASME requirements.

a. A written system has been established to assure that nonconformances are controlled and corrective action is taken.

b. Documented procedures or instructions are implemented for identification, documentation, segregation and disposition of nonconforming materials, parts or components, and notification to affected organizations.

c. Nonconforming items are reviewed and accepted, rejected, repaired or reworked in accordance with documented procedures.

d. Conditions adverse to quality are promptly identified and corrected.

e. The causes of significant conditions adverse to quality are determined and corrected to preclude repetition.

f. The condition adverse to quality, the cause and the corrective action are documented and reported to appropriate levels of management.

2. Method of Accomplishment

The preceding objectives were accomplished by:

a. Review of the QA Manual Section 14.0 "Nonconformities".

b. Review of the approved procedure No. QCP-1, dated September 13, 1978, "Procedure for Handling Nonconformances".

c. Review of the approved procedure No. QCP-2, dated January 4, 1979, "Procedure for Receiving Inspection".

d. Review of Receiving Inspection Rejection Reports No. 0609 dated May 3, 1979, and No. 0610 dated June 14, 1979, covering subvendor nonconformances.

e. Observation of the marking, tagging and documents for the following material reject report items resulting from process work errors.

(1) Seven (7) manifold type valve bodies and Material Reject Report No. 817.

(2) Valve bonnet nuts and Material Reject Report No. 813.

(3) Five (5) manifold type valve bodies and Material Reject Report No. 810.

(4) Forty-one (41) valve bodies, Material Reject Report No. 026, and the Rework Traveler.

3. Findings

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

E. Training

1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with applicable NRC and ASME Code requirements:

a. A written system has been established to assure that indoctrination and training of personnel performing activities affecting quality, is implemented in accordance with applicable codes.

b. Appropriate written agenda are used.

c. Records of training sessions agenda and attendance are maintained.

d. The agenda includes subject matter adequate to provide an understanding of the general and detailed aspects of the QA program, codes, standards and applicable technical disciplines.

e. The instructors are suitably qualified.

2. Method of Accomplishment

The preceding objectives were accomplished by:

a. Review of the QA Manual Section 18.0 "Training".

b. Review of the training program records for 1978 and 1979, for all personnel whose duties affect quality, entitled "Nuclear QA Training Program Personnel Requiring Training". This record included the QA Manual areas covered, the attendees and the dates of training.

c. Review of the 1979 Training Schedule.

d. Review of records of special training for QA personnel.

e. Discussions with cognizant personnel.

3. Findings

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

F. Material Identification and Control

1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with applicable NRC and ASME Code Requirements.

a. A written system has been established to assure that material identification and control is performed in accordance with applicable codes.

b. Documented measures have been used for identification and control of materials and items including partially fabricated assemblies.

c. Identification is maintained either on the item or on records traceable to the item.

d. Permanent or temporary identification marks or numbers are legible and are not detrimental to the item's quality or will interfere with the function of the item.

e. All characteristics required to be reported appear on Checklists or Certified Material Test Reports, and CMTRs have been received, reviewed and found acceptable.

2. Method of Accomplishment

The preceding objectives were accomplished by:

a. Review of the following sections of the QA Manual:

(1) No. 9.0 "Material Control".

(2) No. 10.0 "Process Control".

(3) No. 11.0 "Assembly and Testing (For Valves)".

b. Observation of nuclear barstock stamping, color coding and tagging in the receiving-storage area of Plant No. 1.

c. Observation of rough forgings Heat Mark Symbol E-18, for nuclear tee fittings, in the QA Receiving Inspection Area of Plant No. 1; discussions with the QA Receiving Inspector and review of the following Receiving Inspection Package records:

(1) Purchasing Department Shipping Order PDSO-0003, dated February 2, 1979, for the heat treating of a Lot consisting of 11,715 stainless steel tee forgings in accordance with Gould procedure ESN 202, Revision 4 and 5.

(2) Subvendor's Certification of heat treatment dated March 29, 1978, and the furnace chart, for the above items.

(3) Goulds Receiving Inspection Report, dated April 2, 1979, for the above E-18 heat treated forgings.

(4) The T.A. Traveler signoffs for the above forgings.

(5) The attached material specifications known as ESNs.

(6) The Order Index.

d. Review of the Heat Mark Symbol (HMS) logs at Plant No. 1 and at Plant No. 3.

e. Review at Plant No. 3 of the following Receiving Inspection Package records for manifold type valve bodies for Order No. VM-42:

(1) Order Authorization
(2) Receiving Inspection Report
(3) Order Index
(4) ESN Material Specifications
(5) Design Drawings
(6) T.A. Traveler

f. Observation of shop presses used for stamping and electrolytic etching of the HMS identification on valve parts.

g. Observation of HMS identification on valve parts being assembled for Order No. 4147, and review of the HMS entries on the accompanying traveler.

h. Discussions with cognizant personnel.

3. Findings

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

G. Testing of Completed Products

1. Objectives

The objectives of this area of the inspection were to verify that the following items were controlled in accordance with the applicable NRC and ASME Code requirements.

a. A written system has been established to assure that final pressure tests are controlled in accordance with applicable procedures, specifications or drawings.

b. Final pressure tests are performed in accordance with approved procedures, instructions, specifications or drawings.

c. The results of tests are documented and reviewed for acceptability.

d. The test equipment is calibrated where required.

e. The tests are performed by qualified personnel.

2. Method of Accomplishment

The preceding objectives were accomplished by:

a. Review of the QA Manual Section 11.0 "Assembly and Testing (For Valves)".

b. Review of approved procedure ESN-309, Revision 2, "Hydrostatic Shell and Seat Integrity Test".

c. Observation of the hydrostatic shell and seat leakage tests of two-way manifold valves.

d. Observation of hydrostatic test equipment and facilities.

e. Review of the Design Drawing No. 30129000 dated August 14, 1978, applicable to the above valves being tested, which showed that the valves were ASME III Division I, Class 2 Components.

f. Reviewed records of hydrostatic tests "Test Log" which documented the items, the test conditions and the test results.

g. Review of the Assembly and Test Traveler for the above valves, Serial Numbers 18787-188111.

h. Review of completed travelers and NPV-1 data forms for completed valves SN 24113 through 24137 of Customer Order No. 63668-N19731 and N19732.

3. Findings

a. Deviations from Commitments

None

b. Unresolved Item

Procedure ESN-309, Revision 2, with regard to the hydrostatic seat test, requires that any seat leakage will be measured, recorded and reported to Quality Assurance and the Engineering Department. In discussions with the QA inspector, performing the hydrostatic test, it was learned that the allowable seat leakage of 2cc/hr for the valves being tested, was such a small amount that no attempt is made to collect and measure seat test leakage. The practice is that if a valve shows any seat leakage it is rejected and tagged "hold for QA disposition". Gould

Inc. Valve and Fitting Division management indicated that they will review this matter and revise the procedure if it is considered appropriate to do so.

H. Exit Interview

1. The inspector met with management representatives denoted in paragraph A at the conclusion of the inspection on June 29, 1979.

2. The following subjects were discussed:

   a. Areas inspected.

   b. The unresolved item in paragraph G.3.b. of this report.

3. Management's questions related to the above subjects.