

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

Report No. 99900048/80-01

Program No. 51300

Company: Anchor/Darling Valve Co.
24747 Clawiter Road
Hayward, California 94545

Inspection
Conducted: April 21-25, 1980

Inspector:

V. H. Hunter
V. H. Hunter, Contractor Inspector
Components Section I
Vendor Inspection Branch

5-13-80
Date

Approved by:

D. E. Whitesell
D. E. Whitesell, Chief
Components Section I
Vendor Inspection Branch

5-13-80
Date

Summary

Inspection on April 21-25, 1980 (99900048/80-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B Criteria and applicable codes and standards, including action on previous findings, inspection and tests, in-process inspection and internal audits. The inspection involved twenty-nine (29) inspector hours on site.

Results: In the four (4) areas inspected there were no apparent deviations or unresolved items identified in three (3) areas. One (1) apparent deviation was identified in the remaining area as follows:

Deviation: Audits - Follow-up corrective actions not taken within the specified timeframe. (See Notice of Deviation)

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DETAILS SECTION

A. Principal Persons Contacted

R. W. Swayne, Quality Assurance Manager
D. P. Gilbert, Plant Manager
G. M. Rose, Manufacturing Manager
J. J. Chappell, Senior Projects Engineer
D. A. Solyan, Contracts Supervisor
J. T. Rose, Materials Manager
J. Carroll, Authorized Nuclear Inspector

All principal persons contacted, attended the exit interview meeting.

B. Action on Previous Inspection Findings

1. (Resolved) Unresolved Item (Paragraph F.3.6, Inspection Report No. 99900048/79-01): Reported allegations. This item is now listed as an unresolved item in Inspection Report No. 99900053/80-01.
2. (Resolved) Unresolved Item (Paragraph D.4.b, of Inspection Report No. 99900048/79-01): Suspected design deficiency of disc tee-heads for 52 line items (136 valves).

The inspector verified that Anchor/Darling Valve Hayward (ADVH) had completed their design review of 136 valves suspected of inadequate design of the disc Tee-head area, except for two (2) valves. This encompasses all suspected valves that have been shipped.

The material yield strength used in the review of these items was the minimum yield strength given in Section III, Appendix I, of the ASME Code. Using an allowable stress equal to 90% of the disc material yield strength and calculating both shear and combined stresses in the tee-head area, ADVH has determined that the design for all but 2 valves shipped is adequate. The maximum differential pressure and coincident temperature against which these valves must operate, has been requested from the customer. Upon receipt of this information, the stresses in these two valves can be rechecked. However based on the mechanical properties recorded on the CMTR for the SA 216 grade WCB material from which these two valves were manufactured, it is noted that the actual yield strength of 51 ksi is approximately 140% greater than the code specified minimum of 36 ksi. Based on Article III 3210, of Appendix III, of Section III, in ADVH judgement, the design of these two valves will also be found to be adequate.

C. Review of Vendor's Activities

1. Objectives

The objectives of this area of the inspection were:

- a. To review the vendor's activities to assess its impact on future IE inspections.
- b. Review of fabrication/manufacturing techniques and equipment.
- c. Review of current work loads.

2. Method of Accomplishment

The preceding objectives were accomplished by observing the manufacturing/fabrication processes implemented by the vendor, and discussions with the vendor's cognizant personnel.

3. Findings

All previously reported vendor nuclear work load remains the same. ADVH successfully passed a re-survey by the ASME during the week of March 17, 1980. ADVH has been notified that their Certificate of Authorization will be re-newed for three (3) years.

D. Audit Control

1. Objectives

The objectives of this area of the inspection were to verify that procedures had been prepared and approved by the vendor that prescribed a system for auditing which is consistent with the commitments of the ASME accepted Quality Assurance Manual. Also, verify that these audit procedures were 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, Section 4.4.1 to verify that procedures had been established to prescribe a system for auditing.
- b. Review of the following documents:
 - (1) Current audit check list;
 - (2) Current audit schedule; and
 - (3) Audit personnel qualifications;

to verify that they had been prepared by the designated authority, approved by management and reviewed by quality assurance.

- c. Review of audit procedure NQA-011 to verify that it identified the organizations responsible for auditing and their responsibility; established audit personnel qualifications and training and that the audits are performed by these personnel; and established the essential elements of the audit system.
- d. Review of selective audit reports to verify that they identify the written plan, team selection, team orientation, audit notification, pre-audit conference, audit performance, and post-audit conference.
- e. Review of randomly selected audit reports to verify that the distribution to management, and the audited organization, and follow-up regarding corrective action had been accomplished.
- f. Review of internal and external audit reports to verify that the applicable procedures were available to the audit team personnel, and that the audit procedures were properly and effectively implemented.

3. Findings

a. Deviation

Refer to Notice of Deviation

b. Unresolved Items

None were identified

E. Inspection and Tests

1. Objectives

The objective of this area of the inspection was to verify that the inspection procedures being used by the vendor conform to the requirements of 10 CFR 50, Appendix B and applicable Codes and Standards. Also, verify that inspections were being performed by qualified personnel in accordance with approved procedures.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of the following sections of the ASME accepted QA Manual to verify that the vendor had established an approved system

for the control of inspection.

- (1) Section 9.4.7, "Receiving Inspection"
 - (2) Section 10.3.5, "Receiving Inspection"
 - (3) Section 11.3.4, "Chief Inspector"
 - (4) Section 11.4.4, "Final Acceptance"
 - (5) Section 12.4.4, "In-Process Inspection"
 - (6) Section 12.4.5, "Final Part Inspection"
 - (7) Section 12.4.9, "Acceptance"
 - (8) Section 12.4.10, "Final Inspection"
- b. Review of the following procedures to verify that they had been qualified and issued in accordance with the vendor's quality assurance program:
- (1) NMA-001, "Receiving Procedure"
 - (2) NQA-001, "Receiving Inspection"
 - (3) NQA-024, "Weld Repair Record"
 - (4) NQA-008, "Final Inspection"
- c. Review of inspection personnel qualifications.

3. Inspection Findings

There were no apparent deviations or unresolved items identified.

F. Exit Interview

The inspector met with those individuals noted in paragraph A above at the conclusion of the inspection on April 24, 1980. The inspector summarized the scope and findings identified during the inspection. Management acknowledged the inspector's comments regarding the scope and findings as presented.