8005190311

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

Report No. 99900053/80-01 Program No. 51300

Company: Anchor/Darling Valve Co.
701 First Street
Williamsport, PA 17701

Inspection
Conducted: March 3-6, 1980

Inspector: _____ 04/07/80
V. H. Hunter, Contractor Inspector Date
Components Section I
Vendor Inspection Branch

Approved by: _____ 04/07/80
D. E. Whitesell, Chief Date
Components Section I
Vendor Inspection Branch

Summary

Inspection on March 3-6, 1980 (99900053/80-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B, Criteria and applicable codes and standards, including action on previous findings, allegations relative to NDE which included inspections and tests The inspection involved twenty (20) on site inspector hours by one (1) NRC inspector.

Results: In the three (3) areas inspected there were no apparent deviations. One unresolved item was identified concerning acceptance of defects found by "nonrequired" examinations (See Section D.3.e.).

Details Section

A. Principal Persons Contacted

*J. W. Marlatt, General Manager
*G. W. Knieser, Quality Assurance Manager
G. Greenly, Inspection Supervisor
J. Schram, NDE Level II Inspector
P. Miller, Inspector Assistant

*Attended Exit Interview

B. Action on Previously Identified Items

(Closed) Deviation (Report No. 99900053/79-02): Contrary to Criterion XVIII of Appendix B to 10 CFR 50 and procedure MQCS-1, corrective actions were not taken within the specified time frame. It was verified that corrective actions letter dated 1-8-80 has been implemented and that corrective action responses are being provided in a timely manner.

C. Inspection and Tests

1. Objective

The objective of this area of the inspection was to verify that the nondestructive test (NDT) procedures being used by the vendor conform to the requirements of 10 CFR 50, Appendix B and applicable codes and standards. Also, verify that NDT was being performed by qualified personnel in accordance with approved procedures.

2. Method of Accomplishment

The preceding objective was accomplished by:

a. Review of Section 4.0 of the ASME accepted QA Manual titled "Quality Control" to verify that the vendor had established an approved procedure system for the control of NDT.

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) QAS-9, "NDE Personnel Qualifications and Certification."

(2) Radiographic Procedures MQCS-961, Revision C and QAP-RT.3.1, Revision G.

(3) Visual Inspection Procedure MQC-86, Revision dated 1-11-80.

c. Reviewed qualification records of three (3) NDT personnel.

3. Inspection Findings

There were no apparent deviations or unresolved items identified.

D. Reported Allegations

1. Background Data

On December 11, 1979, IE:RI received an anonymous telephone call alleging certain improprieties on the part of the Anchor/Darling Valve Company (ADVC). The substance of the conversation consisted basically of two (2) allegations described as follows:

a. Unrepaired Crack Indications

(1) During approximately the third week of July 1979, ADVC shipped a fourteen (14) inch 300 pound globe valve to a TVA nuclear facility.

(2) The valve consisted of an upgraded casting with handling lugs welded on.

(3) ADVC, after removing the lugs, performed a magnetic particle test (MT) of the lug area.

(4) The MT disclosed an indication of a seven (7) inch crack.

(5) During excavation and repair of the seven (7) inch indication, MT disclosed sixteen other indications which were not in the lug removal area.

(6) ADVC Supervisor brushed the magnetic particle indications from the casting and performed a visual inspection.

(7) Two (2) inspectors on the 2nd shift refused to sign inspection No. R-3690 to release the valve for shipment.

(8) The 2nd shift supervisor signed the inspection report No. R-3690 in lieu of the inspectors and released the valve for shipment without repairing the sixteen (16) MT indications.

b. Failure to Perform MT After Heat Treating

It is common practice for ADVC not to MT all valve castings after heat treating. (Such was the case with valve casting

referenced in item A. above).

2. Preliminary Investigations

a. NRC-IE:RIV Preliminary Results

ADVC consists of two facilities, one in Hayward, California (ADVH) and the others in Williamsport, Pennsylvania (ADVW) with assigned Docket Numbers of 99900048 and 99900053 respectively.

The inspector received the allegations while on a routine inspection of the ADVH facility during the week of December 10, 1979. As the two facilities share a common data system relative to all valves manufactured and shipped, the inspector verified the following information:

(1) On July 19, 1979, ADVW shipped an 18" 300 pound Class II globe valve with motor operator to TVA. The ADVW job number was E-6318 with Inspection Report No. R-3696.

(2) The TVA purchase order is 77K52-87381-3 with referenced valve intended for use at the Hartsville plant B, Unit #1.

(3) ADVW inspection report was signed by an inspector and not by a supervisor.

(4) All inspection reports documented thirty (30) days prior to and thirty (30) days subsequent to July 19, 1979, indicated that they were signed by inspectors.

The above listed information was reported as an unresolved item in Inspection Report No. 99900048/79-02.

b. Licensee (TVA) Results

As a result of the inspectors preliminary findings, TVA performed 100% MT of the referenced valve body at the plant site during the week of January 14, 1980. Results of the MT disclosed twenty-two (22) linear indications scattered over the valve body ranging in length up to 1-1/4" long. TVA further noted that some of the discontinuities causing the indications were visible on the surface and appeared to be surface laps in the casting while others were not visable.

3. Current Investigation

a. Objectives

The objectives of this investigation were to ascertain whether the referenced allegations were accurate, and if so, determine the acceptable status of the valve in question.

b. Objectives Accomplished by:

(1) Review of Section 4.0 of the ASME accepted QA Manual.

(2) Review of NDT Personnel Qualifications.

(3) Review of NDT and Heat Treat Records for the valve in question.

(4) Review ADVW/TVA imposed contractual requirements for TVA Contract No. 77K52-87381-3.

(5) Interviews with involved NDT inspectors and their supervisory personnel.

c. Investigation Results

(1) Allegation of unrepaired crack indications: Personnel interviews disclosed that during the week of July 16, 1979, an MT inspector on the second shift performed MT of weld repairs on the referenced valve casting. Due to the overlap of the magnetic field relative to the several weld repair areas, the inspector noted numerous indications located outside of the "area of interest" e.g. outside of the weld repair and heat affected zones. Since the inspector had no inspection supervision on the second shift, he requested the manufacturing supervisor for disposition. The supervisor advised the inspector to mark the indications and place the casting in hold status for disposition by day shift management. The inspection supervisor, using established company policy, removed the indications and reinspected the casting to contractual and ASME Code requirements.

It was ADVW management policy to disregard indications found by NDE Methods not required. (See Enclosure No. 2).

Unresolved Item: The acceptability of ADVW policy directing their inspectors to disregard without further evaluation defect indications found by a "non-required" test method is being referred for review by IE/HQS. This item will be considered unresolved until the completion of this review.

(2) Allegation of failure to perform MT on all castings after heat treat: Review of heat treat records, contract and ASME Code requirements, and interviews with involved personnel disclosed that Section III of the ASME Code requires that MT be performed on Class I valve castings only unless weld repairs are made after heat treatment. The valve casting in question was identified as Class II with MT required for weld repairs including lifting lug removal area, and a visual inspection for the balance of the casting.

The inspector has no further questions at this time.

E. Exit Interview

The inspector met with management representatives (denoted in paragraph A.) at the conclusion of the inspection on March 6, 1980. The inspector summarized the scope and findings identified during the inspection. Management representatives acknowledged the inspector's findings with no further comments.