

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

Report No. 99900070/80-01

Program No. 51300

Company: Associated Piping and Engineering Corporation
1707 West Compton Boulevard
Compton, California 90224

Inspection Conducted: January 21-25, 1980

Inspector:

H. W. Roberds
H. W. Roberds, Contractor Inspector
Components Section II
Vendor Inspection Branch

2-27-80
Date

Observer:

D. M. Hunnicutt
D. M. Hunnicutt, Chief
Components Section II
Vendor Inspection Branch

2-27-80

Approved by:

D. M. Hunnicutt
D. M. Hunnicutt, Chief
Components Section II
Vendor Inspection Branch

2-27-80
Date

Summary

Inspection on January 21-25, 1980 (99900070/80-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B Criteria and applicable codes and/or standards; including manufacturing process control, welding material control, joint fitup and welding, welder qualification and welding, procedure specifications. The inspection involved twenty-eight (28) inspector-hours on site.

Results: In the five (5) areas inspected, no apparent deviations or unresolved items were identified in two (2) areas; the following deviations were identified in the remaining areas:

Deviations: Manufacturing Process Control - Production traveler was not signed off or stamped and dated for certain operations in accordance with Criterion V of 10 CFR 50 Appendix B and Section 9.0 of the QA Manual (Notice of Deviation, Item A). The welder identification, weld material or the weld procedure was not entered on the production traveler in accordance with Criterion V of 10 CFR 50 Appendix B and Section 9.0 of the QA Manual (Notice of Deviation, Item B).

Joint Fitup and Welding - electrical parameters of a production welding operation not in accordance with Criterion V of 10 CFR 50 Appendix B and Welding Process Specification 801-63 (Notice of Deviation, Item C).

Welder Qualification - Welders not qualified in full compliance with Section IX of the ASME Code (Notice of Deviation, Item D).

DETAILS SECTIONA. Persons Contacted

- *H. A. Anderson, Executive Vice President
- *R. L. Jordan, Quality Assurance Manager
- *J. Corder, Quality Control Manager
- *M. Ovasier, Vice President
 - T. R. Duckworth, Chief Inspector
 - K. Q. Adams, Quality Assurance Engineer
 - B. Roderer, Chief Inspector, Temp Flex Division

*Denotes those persons attending exit meeting.

B. Manufacturing Process Control1. Objectives

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

- a. Manufacturing is performed under a controlled system.
- b. Certain processes are accomplished by qualified personnel using approved procedures.
- c. Results are reported at the completion of a specific operation.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of Section 4.0 and 9.0 of the QA Manual.
- b. Selective review of Production Travelers.
- c. Observation of work in process at various states of the fabrication cycle.
- d. Interviews with cognizant personnel.

3. Findingsa. Deviations from Commitments

- (1) See Notice of Deviation, Item A

(2) See Notice of Deviation, Item B.

b. Unresolved Items

None.

C. Welding Material Control

1. Objective

The objective of this area of the inspection was to determine if welding material purchase, acceptance, storage and handling was in accordance with the AP&E QA program and applicable ASME Code requirements.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of the QA Manual, Section 5.0, Revision 1, "Welding Quality Assurance."
- b. Examination of weld material storage area
- c. Examination of electrode ovens for material identification and temperature control.
- d. Review of Certified Material Test Report for weld material EB549, CX-816, and CZ-128 observed being used on Job Nos. F20145A, S/S; 4, F20145A, S/S 18; and F20216, S/S 4.

3. Findings

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

D. Joint Fitup and Welding

1. Objective

The objective of this area of the inspection was to determine if production welding was controlled in accordance with the AP&E QA program and applicable ASME Code requirements.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of the Quality Assurance Manual, Section 5.0, "Welding Quality Assurance."
- b. Review of WPS 801-63, revision 11, WPS 802-65, WPS-812-63, revision 9, and WPS-820-634, revision 7.
- c. Observation of production welding operations on SS/Dwg and Job No. F-20145A, with respect to:
 - (1) Use of the welding process specification referenced by the applicable traveler,
 - (2) Availability of the welding process specification at work location,
 - (3) Use of approved welding materials required by the welding process specification, and
 - (4) Verification that the welding was performed within the parameters listed on the welding process specification.
- d. Review of welding surveillance records relative to the program commitments.

3. Findings

a. Deviations from Commitments

See Notice of Deviation, Item C

b. Unresolved Items

None.

E. Welder Qualifications

1. Objective

The objective of this area of the inspection was to determine if welders and welding operators were qualified in accordance with Section IX of the ASME Code and AP&E QA program.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of the Quality Assurance Manual, Section 5.0, "Welding Quality Assurance."

- b. Review of welder qualification records for welders number 4, 11, 3, 27 and 8.

3. Findings

a. Deviation from Commitment

It was determined that welders had not been qualified to weld piping less than 2 7/8 inch in diameter, as required by Section IX of the ASME Code. However, AP&E welders were qualified to weld pipe greater than 2 7/8 inch in diameter for all thickness ranges (3/16 inch thick to maximum thickness to be welded) as specified in Section IX of the ASME Code.

AP&E has requested that the ASME clarify the qualification requirements for welding pipe of less than 2 7/8 inch diameter to larger diameter pipe. When a response is received from the ASME, AP&E will evaluate the response and take appropriate corrective action.

b. Unresolved Items

None.

F. Welding Procedure Specifications

1. Objectives

The objectives of this area of the inspection was to determine if the welding procedure specifications (WPS) used by AP&E in production welding were being prepared, qualified and controlled in accordance with the AP&E QA program and applicable ASME Code requirements.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of the Quality Assurance Manual, Section 5.0, "Welding Quality Assurance."
- b. Review procedure qualification records PQR 8-67, PQR 8-2 with respect to:

- (1) Listing of all required essential variables,
- (2) Performance of all mechanical test required by the ASME Code, and
- (3) Verification that mechanical test results comply with ASME Code requirements.

3. Findings

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

G. Exit Meeting

A post inspection exit meeting was held on January 25, 1980, with the management representatives denoted in paragraph A. above. The inspector summarized the scope and findings of the inspection. Management acknowledged the statements of the inspectors with respect to the findings as presented to them and affirmed their commitment to the Quality Assurance Program.