

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

Report No. 99900025/79-02

Program No. 51300

Company: Southwest Fabricating & Welding Co., Inc.
7525 Sherman Street
Post Office Box 9449
Houston, Texas 77011

Inspection
Conducted: June 25-28, 1979

Inspector: *for* *D. M. Hunnicutt* *7/13/79*
I. Barnes, Contractor Inspector Date
Vendor Inspection Branch

Approved by: *D. M. Hunnicutt* *7/13/79*
D. M. Hunnicutt, Chief, Components Section II Date
Vendor Inspection Branch

Summary

Inspection on June 25-28, 1979 (99900025/79-02)

Areas Inspected: Implementation of 10 CFR 50, Appendix B, criteria and applicable codes and standards, including action on previous inspection findings, manufacturing process control, equipment calibration and non-conformances and corrective action. The inspection involved twenty-nine (29) inspector-hours on site.

Results: In the four (4) areas inspected, no apparent deviations or unresolved items were identified in two (2) areas, with the following deviations being identified in the remaining areas:

Deviations: Action on Previous Inspection Findings - Issue made of a Notice of Pending Revision, that was not in accordance with corrective action commitments with respect to the obtaining approval of the Vice President - Engineering (Notice of Deviation, Item A).

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Manufacturing Process Control - Improper listing of gas tungsten arc position qualifications for a certain welder is not consistent with Criterion IX of 10 CFR 50, Appendix B, and Section 6.0 of the QA Manual (Notice of Deviation, Item B).

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DETAILS SECTION

A. Persons Contacted

*B. J. Goodwin, President and Chief Executive Officer
*N. H. Moerke, Vice President, Engineering
*R. P. Bornes, Manager, Quality Assurance
*R. L. Pearson, Manager, Welding
*S. M. Goodwin, Chief Inspector
J. F. Finn, Vessel Design Engineer

*Attended Exit Meeting.

B. Action on Previous Inspection Findings

1. (Closed) Deviation (Item A, Notice of Deviation, Inspection Report No. 79-01): Open containers of coated electrodes observed being stored at temperatures not in accordance with posted instructions.

The inspector verified that committed instructions and audit verifications had been performed and established by direct inspection, that current practices with respect to electrode storage temperature control, documentation and surveillance, were consistent with corrective action commitments and QA program requirements.

2. (Closed) Deviation (Item B, Notice of Deviation, Inspection Report No. 79-01): Gas tungsten arc welding wires observed to be not identified in a manner to provide required traceability.

The inspector verified that a different identification tag system had been implemented to provide for welding material traceability and that the committed review, to assure positive re-identification of the identified welding wires, had been performed.

3. (Closed) Deviation (Item C, Notice of Deviation, Inspection Report No. 79-01): Performance of shielded metal arc welding without removal of slag from the bead surface prior to disposition of connecting adjoining bead.

This finding has been closed on the basis of the information presented by Southwest Fabricating & Welding Co., Inc. (SEW) in their response letter dated March 26, 1979.

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4. (Closed) Deviation (Item D, Notice of Deviation, Inspection Report No. 79-01): Certain activities affecting quality accomplished by Manufactured Materials Department in a manner not consistent with documented QA program instructions.

The inspector verified that committed actions had been performed with respect to personnel instruction, QA Manual revision and documentation correction and verification. During this inspection, however, a deviation from corrective action commitment was identified pertaining to shop copy changes of forming temperature i.e. Details I, D.3.a.(4), Inspection Report No. 79-01 (See Notice of Deviation, Item A).

5. (Closed) Deviation (Item E, Notice of Deviation, Inspection Report No. 79-01): Certain reclassification orders did not list the correct liquid penetrant examination procedure to be used.

The inspector verified, that current practice with respect to reclassification orders (R.O.) requiring work to be performed in accordance with a written procedure, is to list the applicable procedure on the R. O. prior to approval of the R. O. by the Manager of QA.

6. (Closed) Deviation (Item F, Notice of Deviation, Inspection Report No. 79-01): Optical pyrometer finish forming temperature not recorded on Manufacturing Record Sheet.

This finding has been closed on the basis that the original citation was in error, in that review during this inspection showed forming temperature had been recorded on the specific Manufacturing Record Sheet. Additional review on this subject revealed no other instance where forming temperature had not been recorded.

7. (Closed) Deviation (Item G, Notice of Deviation, Inspection Report No. 79-01): Performance of welding at a travel speed in excess of that allowed by the applicable welding procedure specification.

The inspector verified that the committed documentation revision and personnel instruction meeting had been performed.

C. Manufacturing Process Control

1. Objective

The objective of this area of the inspection was to verify that the manufacturing process is controlled in accordance with applicable regulatory and code requirements.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of Section 5.0 of the QA Manual, Revision 12, "Process Control".
- b. Observation of manufacturing operations in the vessel, piping and manufactured materials areas.
- c. Examination of Manufacturing Record Sheets for components observed in manufacture relative to:
 - (1) Completeness of operation sign-off in terms of observed visual status.
 - (2) Compliance with Engineering instructions on accompanying Detail Sheets.
 - (3) Utilization of only approved welding and examination procedures.
 - (4) Compliance with inspection and hold point requirements.
 - (5) Verification that examinations were performed only by appropriately qualified personnel.
- d. Review of welding personnel qualifications and qualification system relative to the specific work observed being performed.

3. Findings

a. Deviation from Commitment

Gas tungsten arc Inconel Buttering for Operation 22 on Sales Order S.O. Q4290, Sheet 77, was observed on June 27, 1979, being performed in the 3G and 2G position by a welder, who was indicated by the QA welder qualification list to be qualified for the process and application in all positions.

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However, the QA welder qualification list was determined to be incorrect, in that the applicable record of welder qualifications tests (used in compilation of the list) had erroneously recorded a 6G pipe groove all position qualification being employed for the test. The test information showed that a plate had actually been used for the qualification test which the inspector was informed by management, would have been welded in the 3G position.

Paragraph QW-303.1 in Section IX of the ASME Code limits performance qualifications to the 3G and 1G positions, when a 3G test position is employed.

See Notice of Deviation, Item B.

b. Unresolved Items

None

D. Equipment Calibration

1. Objectives

The objectives of this area of the inspection were to ascertain that a system had been established, documented, and maintained 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 with stipulated limits.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of Section 8.0 of the QA Manual, Revision 12, "Control of Equipment, Tools, Gauges & Instruments".
- b. Review of calibration procedures, ITI-1 through 18.
- c. Examination of calibration status and records for:

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- (1) Dimensional gages in the nuclear stainless pipe fabrication bay.
- (2) Hydrostatic test pressure gages.
- (3) Postweld heat treatment furnace.
- (4) Meters on welding power sources in vessel and piping fabrication areas.

- d. Review of system used to provide traceability of inspection equipment to items inspected.
- e. Review of master gage calibration and control program.

3. Findings

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

E. Nonconformances and Corrective Action

1. Objective

The objective of this area of the inspection was to verify that a system for the control of nonconformances and for assuring effective corrective action has been established and implemented.

2. Method of Accomplishment

The preceding objective was accomplished by:

- a. Review of Section 10.0 of the QA Manual, Revision 12, "Nonconformances & Corrective Action".
- b. Examination of two (2) open reports of nonconformance (RON) and twelve (12) closed RONs with respect to:
 - (1) Identification of item and description of nonconformance.
 - (2) Identification of reporting party and personnel responsible for resolution.
 - (3) Disposition of nonconformances in accordance with program commitments.
 - (4) Evidence of management participation in nonconformance report and corrective action review.

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- (5) Analysis of nonconformances and determination of required corrective action.
- (6) Assigned responsibilities are carried out in an effective manner.

3. Findings

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

F. Exit Meeting

The inspector met with the management representatives denoted in paragraph A. above on June 28, 1979, at the conclusion of the inspection. The scope of the inspection and the findings were discussed with management representatives present. Management had no questions relative to the statements of the inspector regarding the inspection findings.

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