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

Report No. 99900021/79-01 Program No. 51300

Company: Pullman Power Products
Division of Pullman, Inc.
Post Office Box 3308, Reach Road
Williamsport, Pennsylvania 17701

Inspection Conducted: March 27-30, 1979

Inspector: I. Barnes 4-20-79
I. Barnes, Contractor Inspector, Vendor Inspection Branch — Date

Approved by: D M Hunnicutt 4/20/79
D. M. Hunnicutt, Chief, Components Section II, Vendor Inspection Branch — Date

Summary

Inspection on March 27-30, 1979 (99900021/79-01)

Areas Inspected: Implementation of 10 CFR 50, Appendix B, criteria and applicable Codes and standards, including action on previous inspection findings; procedure, document and drawing control; manufacturing process control; and equipment calibration. The inspection involved twenty-eight (28) inspector-hours on site.

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

Deviations: Equipment Calibration - QA Program provisions, relative to determination of required corrective action for discrepancies found during calibration of welding equipment meters and setting devices are not consistent with Criterion XII of 10 CFR 50, Appendix B, and NCA-4134.12 in the ASME Code (Enclosure, Item A).

Manufacturing Process Control - Selection of inappropriate WPS and failure to utilize drawing required preheat temperature not consistent with Criterion V of 10 CFR 50, Appendix B, and Section IX of the QA Manual (Enclosure, Item B).

DETAILS SECTION

A. Persons Contacted

*R. E. Howard, Vice President and General Manager
*E. F. Gerwin, Vice President, Quality Assurance
*E. L. Baker, Plant Manager
*T. Daniels, Director of Quality Assurance
*A. Bair, QA Manager
*J. A. Koch, Manager, Engineering
L. A. Christ, Administrative Assistant
*W. L. Cox, Senior Auditor, Quality Engineering Group
*D. Gehr, Field QA Engineer
J. Johns, Project Engineer
*T. C. Myers, Welding Engineer
*F. A. Richards, Welding Engineer
*L. A. Ryan, Acting Production Manager
*R. A. Stryker, QA/QC Supervisor
*K. A. Swisher, Senior QA Engineer
J. R. Weaver, Project Engineer
*H. J. Donlin, Authorized Nuclear Inspection Specialist, Hartford Steam Boiler Inspection and Insurance Company
*R. H. Wertz, Authorized Nuclear Inspector, Hartford Steam Boiler Inspection and Insurance Company

*Attended Exit Interview.

B. Action on Previous Inspection Findings

1. (Closed) Deviation (Item A, Enclosure, Inspection Report No. 78-01): Use of unidentified temporary attachments, without evidence on the Weld History Record of the identity of the welder, welding procedure or welding materials used to weld the attachments.

   The inspector verified that the additional commitments for resolution of this item, contained in the Pullman Power Products (PPPA) letter of November 13, 1978, had been implemented with respect to revision of Procedure X-9 and audit responsibilities. Specific clarification relative to audit checklists addressing control of temporary attachments was agreed upon and accomplished during the inspection.

2. (Closed) Deviation (Item B, Enclosure, Inspection Report No. 78-01): Certain production welding operations were observed being performed that were not in full conformance with the requirements of the relevant welding procedure specification.

The inspector verified that the additional commitments for resolution of this item, contained in the PPPA letter of November 13, 1978, had been implemented relative to welding procedure revision, correct PQR reference, performance of welding training sessions and revision of the Quality Control Welding Inspection Surveillance Report to include a reference to workmanship and submerged arc welding travel speed. Specific clarification relative to inclusion of production welding compliance with WPS requirements in the audit checklists was agreed upon and accomplished during the inspection.

3. (Closed) Deviation (Item C, Enclosure, Inspection Report No. 78-01): Failure to perform a required magnetic particle or liquid penetrant examination of a cavity to assure complete weld defect removal.

   The inspector verified that the additional clarification for resolution of this item, contained in the PPPA letter of November 13, 1979, had been implemented relative to definition of audit responsibilities and performance of audits.

4. (Closed) Deviation (Item D, Enclosure, Inspection Report No. 78-01): Failure to fully qualify a certain welding procedure specification with respect to amperage supplementary essential variables.

   The inspector verified that the committed review and requalification of welding procedure specifications, utilized in notch toughness applications, had been performed. It was also established that a procedure had been written relative to definition of testing requirements to testing laboratories.

5. (Closed) Deviation (Item E, Enclosure, Inspection Report No. 78-01): Failure to notify the ANI in advance of hold point established for an operation on a process sheet.

   The inspector verified that the additional clarification for resolution of this item, contained in the PPPA letter of November 13, 1978, had been implemented relative to definition of audit responsibilities and inclusion in the audit program.

6. (Closed) Deviation (Item F, Enclosure, Inspection Report No. 78-01): Weld procedure selected for a weld repair was not recorded on the appropriate document in the traveler package.

   The inspector verified that the additional clarification for resolution of this item, contained in the PPPA letter of

November 13, 1978, had been implemented relative to definition of audit responsibilities and performance of audits.

7. (Closed) Deviation (Item A, Enclosure, Inspection Report No. 78-02): Failure to implement committed corrective actions relative to item B in Inspection Report No. 78-01.

   The inspector verified that committed actions had been implemented relative to WPS revision for argon purge deletion, institution of a welder training program and revision of the Quality Control Welding Inspection Surveillance Report to include reference to workmanship and WPS requirements.

8. (Closed) Deviation (Item B, Enclosure, Inspection Report No. 78-02): Selection of a certain pipe not made so as to preclude thinning below minimum wall requirements in subsequent fabrication.

   The inspector verified that the committed QA Manual revisions relative to materials selection and control in bending applications had been performed and that the designer had been approached relative to the adequacy of schedule numbers in terms of allowance for thinning in bending.

9. (Closed) Deviation (Item C, Enclosure, Inspection Report No. 78-02): Improper approval of process sheets and failure to use for control of nondestructive examinations.

   The inspector verified that the committed training activities had been performed for relevant NDE and QA personnel.

C. Equipment Calibration

1. Objectives

   The objectives of this area of the inspection were to ascertain that a system has 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 within specified limits.

2. Method of Accomplishment

   The preceding objectives were accomplished by:

   a. Review of Section XII of the QA Manual, revision dated February 15, 1979, "Control of Measuring and Test Equipment."

b. Review of Procedure XII-2W, revision dated December 4, 1978, "Procedure For The Calibration Of Tools, Measurement And Test Equipment."

c. Review of Procedure XII-3W, revision dated November 20, 1978, "Calibration Procedure For Hydro-Static Test Pressure Gages."

d. Examination of calibration status and records for twelve (12) gages in three (3) machinists possession.

e. Verification of issue control of gages to machinists.

f. Examination of calibration status and records for heat treatment furnace.

g. Examination of calibration status and records for two (2) manual welding power sources and meters on one (1) submerged arc machine.

h. Examination of calibration records from sub-contractor for an infra-red optical pyrometer.

i. Review of calibration controls for hydrostatic test pressure gages.

j. Review of master gage calibration and control program.

3. Findings

a. Deviation from Commitment

Paragraph (c) in Sub-Article NCA-4134.12 of the ASME Code states, "When discrepancies in measuring or testing equipment are found at calibration, the Certificate Holder shall determine what corrective action is required. Materials and items previously checked (since the previous valid calibration) with equipment which is out of calibration shall be considered unacceptable until the Certificate Holder can determine that all applicable requirements have been met."

Contrary to the above:

(1) Calibration Procedure XII-2W requires adjustment of meters and output indicating devices on welding equipment when found at calibration to be in excess

of a one (1) scale or setting division accuracy limit, without any requirement for consideration of either corrective action need, or, effects of discrepancy on items fabricated with the equipment since the previous valid calibration.

(2) The QA Manual (Paragraph 12.5, Section XII) addresses this Code requirement only in the context of dimensional measurement equipment. (See Enclosure, Item A.)

b. Unresolved Items

None.

D. Manufacturing Process Control

1. Objectives

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 XIV of the QA Manual, revision dated September 12, 1978, "Inspection, Test, And Operating Status."

b. Review of Section X of the QA Manual, revision dated February 14, 1979, "Manufacturing Control And Inspection."

c. Review of Section IX of the QA Manual, revision dated February 15, 1979, "Control Of Special Processes."

d. Observation of manufacturing operations and status on six (6) piping assemblies, which were selected from four (4) contracts, relative to:

(1) Completeness of operation sign off in terms of observed visual status.

(2) Methods and practices used being consistent with QA Program commitments and ASME Code requirements.

(3) Utilization of procedures approved for the applicable contract and appropriate for specific application.

(4) Compliance with inspection and hold point requirements.

(5) Personnel being qualified as required by the ASME Code.

3. Findings

a. Deviation from Commitment

See Enclosure, Item B.

b. Unresolved Items

None.

E. Procedure, Document, and Drawing Control

1. Objectives

The objectives of this area of the inspection were to:

a. Ascertain that a system has been established for the control of procedures, documents, and drawings which is consistent with the QA Program and customer design requirements.

b. The system has been established and is operating effectively.

2. Method of Accomplishment

The preceding objectives were accomplished by:

a. Review of Section III of the QA Manual, revision dated February 15, 1979, "Design Control."

b. Review of Section V of the QA Manual, revision dated February 15, 1979, "Instructions, Procedures And Drawings."

c. Review of Section VI of the QA Manual, revision dated February 14, 1979, "Document Control."

d. Review of customer approved procedures for Job No. 80015.

e. Verification that customer approved procedures for Job No. 80015 and QA Program required procedures were at work stations.

f. Review of traveler packages for seven (7) assemblies from the referenced contract in terms of specification of use of approved procedures.

g. Examination of shop drawings in traveler packages for review and approval status.

h. Verification that drawings in shop use were correct revisions required by the Engineering Department.

i. Verification that drawings had been submitted and approved in accordance with customer requirements.

3. Findings

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

F. Exit Interview

The inspector met with the management and Authorized Inspection Agency representatives denoted in paragraph A above on March 30, 1979, at the conclusion of the inspection. The scope of the inspection and the findings were discussed with the representatives present. Management acknowledged the statements of the inspector and had no specific questions relative to the findings.