

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

Report No. 99900104/80-01

Program No. 51300

Company: Westinghouse Electric Corporation
Pensacola Plant
P. O. Box 1313
Pensacola, Florida 32596

Inspection Conducted: April 21-25, 1980

Inspectors: *L. M. Hunnicutt* 5/5/80
for L. E. Ellershaw, Contractor Inspector Date
Component Section II
Vendor Inspection Branch

Approved by: *L. M. Hunnicutt* 5/5/80
D. M. Hunnicutt, Chief Date
Component Section II
Vendor Inspection Branch

Summary

Inspection performed April 21-25, 1980 (99900104/80-01)

Areas Inspected: Implementation of 10 CFR 50 Appendix B Criteria and applicable codes and standards including: previous inspection findings; material identification and control; joint fitup and welding, and weld heat treatment. The inspection involved 32 inspector-hours on site.

Results: In the four areas inspected, two deviations from commitment were identified in two areas. No unresolved items were identified.

Deviations: Joint Fitup and Welding - welding was observed being performed outside the parameters of certain essential variables (Notice of Deviation, Item A); Weld Heat Treatment - The required, minimum number of thermocouples was not used during the postweld heat treatment of a nozzle (Notice of Deviation, Item B).

DETAILS SECTION

(Prepared by L. E. Ellershaw)

A. Persons Contacted

J. E. Allen - QA Engineer
W. E. Blake - QA Engineer
W. Bullivant - QA Engineer
G. E. Callender - Manager, QA Engineering
K. M. Carlson - Supervisor, QA Records and Inspection
M. L. Ferguson - QA Engineer
A. H. Furth - Welding Engineer
R. Gibbons - Welder
R. Guss - Inspector
W. R. Rosenberger - Manager, Manufacturing Engineering
R. Sigman - Welding Engineer

B. Action on Previous Inspection Findings

1. (Closed) Item A (Report No. 79-02): This item dealt with different types of electrodes being stored in the same storage oven.

Westinghouse Electric Corporation, Pensacola Plant (WPP), has implemented their committed corrective action by adding additional ovens to allow for complete separation of electrode types.

2. (Closed) Item B (Report No. 79-02): This item dealt with welders having more than one heat of electrodes in their possession.

WPP has implemented their committed corrective action by monitoring storage ovens to assure only one heat for each wire diameter is located within the ovens.

3. (Closed) Item C (Report No. 79-02): This item dealt with WPP receiving, accepting, and releasing weld wire, which was not in compliance with purchase order requirements.

WPP has implemented their committed corrective action by reviewing certifications to assure compliance with purchase order requirements.

4. (Closed) Item D (Report No. 79-02): This item dealt with certain, working, welding procedure specifications (WPS) not incorporating all ASME Code nonessential variables.

WPP has implemented their committed corrective action by revising the WPSs and conducting a review of other WPSs to assure compliance with ASME Code requirements.

5. (Closed) Item E (Report No. 79-02): This item dealt with unauthorized changes to route sheets.

WPP has implemented their committed corrective action by correcting the route sheets in question, and holding training sessions for manufacturing and quality personnel.

C. Material Identification and Control

1. Objectives

The objectives of this area of the inspection were to verify that WPP had implemented the requirements for the identification and control of material in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Program Manual Section 8.0, "Identification and Control of Materials and Items", revision 1 dated January 10, 1980.
- b. Review of Procedure PE-15-04-19, revision 4 dated February 2, 1979, "Shop Control of Welding and Brazing Materials."
- c. Observation of material/components to assure identity is being maintained.
- d. Review of certified material test reports related to the observed material/components.
- e. Verification of part marking, as required by the design drawings.
- f. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitments

None.

b. Unresolved Items

None.

D. Joint Fitup and Welding

1. Objectives

The objectives of this area of the inspection were to verify that WPP had implemented the requirements for the control of joint fit-up and welding in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Program Manual Section 9.3, "Welding and Brazing Process," revision 1 dated January 10, 1980.
- b. Observation of in-process SMAW and PAW.
- c. Review of associated WPSs being used in conducting the above in-process welding operations.
- d. Review of the welder's performance qualifications and the PQRs.
- e. Verification of the identity of the welding materials being used.
- f. Discussions with cognizant personnel.
- g. Review of Procedure PE-12-04-015, "Patrol Inspection of Welding," revision 2 dated March 21, 1980.

3. Findings

a. Deviation From Commitment

See Notice of Deviation, Item A.

b. Unresolved Item

None.

E. Weld Heat Treatment

1. Objectives

The objectives of this area of the inspection were to verify that WPP had implemented the requirements for the control of post weld heat treatment (PWHT) in accordance with the QA Manual and applicable NRC and ASME Code requirements.

2. Method of Accomplishment

The preceding objectives were accomplished by:

- a. Review of QA Program Manual Section 9.5. "Control of Heat Treatment," revision 1 dated January 10, 1980.
- b. Review of Procedure DMP-15-4-5524, "Heat Treatment Procedure, Pressurizer Components," revision 4 dated October 8, 1979.
- c. Observation of a local PWHT being performed on a Lower Head/Shell Assembly.
- d. Review of Furnace Charts and Summary Heat-Treat Records.
- e. Discussions with cognizant personnel.

3. Findings

a. Deviation From Commitments

See Notice of Deviation, Item B.

b. Unresolved Item

None.

c. Additional Concerns

QA Program Manual Section 9.0, paragraph 9.5.3 and DMP-15-4-5524 requires inspection to review all heat treatment recording charts. The practice is to then transcribe all information onto an Inspection Instructions/Recording Form, in this case called a Summary Heat-Treat Record. Information such as Shop Order, item description, Drawing No., Procedure No., total hours for heat-up, soak and cool-down, and Inspector's sign-off and date, etc., is included.

Other information, including certain ASME Code parameters, is not included e.g., uniformity within 100°F during heat-up and cool-down above 800°F, actual soak temperatures, any variations in temperature greater than 250°F within any 15 foot interval of weld length, and number of thermocouples used.

WPP indicated the Summary Heat-Treat Record would be the permanent record, rather than the actual heat treat recording chart, as allowed by the ASME Code. At the present time, the only jobs requiring PWHT are pressurizers and the customer is requiring retention of the recording charts.

The concerns, as discussed with management, relate to the interpretation of the recording charts and subsequent transcribing to the Summary Heat-Treat Record (SHTR). A review of several charts and their associated SHTRs showed considerable discrepancies between the actual hours (for heat-up, soak, and cool-down times) and the hours as recorded.

Another concern was related to the apparent lack of awareness by WPP inspection personnel of the requirements in Procedure DMP-15-4-5524. The procedure states in part, . . . "at NO time shall the soak time exceed four (4) hours at 1100^oF to 1150^oF"

One SHTR showed a five hour soak time, however, a review of the heat treat chart showed four hours actual soak time. This, of course, is in addition to Item B. in the Notice of Deviation, in which the furnace operator failed to attach two thermocouples to the nozzle, and the subsequent failure by Inspection to detect this condition.

F. Exit Interview

The scope and findings of this inspection were summarized at the conclusion of the inspection on April 25, 1980 with the following management representatives and the Authorized Nuclear Inspector (ANI):

G. E. Callender - Manager, QA Engineering
 K. M. Carlson - Supervisor, QA Records and Inspection
 M. L. Ferguson - QA Engineer
 R. E. Goss - Manager, Operations
 F. B. Hyland - Manager, Product Assurance
 P. G. Jacob - General Supervisor, Welding
 R. Latta - Manager, Manufacturing Planning
 W. R. Rosenberger - Manager, Manufacturing Engineering
 T. M. Zwick - ANI, Kemper Insurance Companies

Management acknowledged the statements relative to the findings.