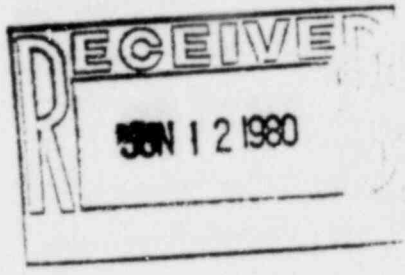
PA-80-061

Westinghouse Electric Corporation
Water Reactor Divisions

Pensacola Plant
Box 1313
Pensacola Florida 32596

June 6, 1980



Mr. D. M. Hunnicutt, Chief
Components Section II
U S Nuclear Regulatory Commission
Office of Inspection & Enforcement
Region IV
611 Ryan Plaza Drive - Suite 1000
Arlington, TX 76012

Subject: Response to Docket Report No. 99900104/80-01
Inspection conducted on April 21-25, 1980

Dear Mr. Hunnicutt:

This letter is in response to the subject inspection report in which you requested specific information relative to two (2) deviations and additional concerns. Attached is our response, arranged in the format requested.

The content of our response is not proprietary, thus we include no request for limitation of disclosure. Please contact me if you have questions regarding any response.

D. E. Collinder for

F. B. Hyland, Manager
Product Assurance

MLF/FBH/eds

Attachment

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WESTINGHOUSE ELECTRIC CORPORATION

Pensacola Plant

RESPONSE TO USNRC INSPECTION REPORT NO. 99900104/80-01

Conducted April 21-25, 1980

NRC Finding:

A. ASME Code, Section IX, Article II, QW-282.4 states in part, "Essential variables.....plasma arc welding. The WPS shall be set up as a new WPS, and shall be completely requalified, when any of the following changes are made.....(g) A change in the voltage beyond the range specified. (i).....A decrease of 10 percent or more in the rate of flow of shielding gas or mixture."

WPS PAW-MA-385, Revision 3, required the use of 14-18 volts and a shielding gas flow rate of 50 CFH.

Contrary to the above, the inspector observed in-process hardfacing weld metal overlay operations, using WPS PAW-MA-385 on Shop Order PCZL 454, in which the following violations of essential variables occurred:

(1) Welding was being performed using 26 volts.

(2) The shielding gas flow rate was 45 CFH.

WPP Response:

This deviation addresses violation of (2) areas of essential variables relative to hardfacing using the plasma arc welding process (ASME Code, Section IX, Article II, QW-282-4). The corrective action, prevention of recurrence and timing of each area is described below:

A. Corrective action has been initiated by (2) two methods in each of these areas:

a) All qualified welders have been re-instructed of the essential variables of the process related to hardfacing applications and the need for adherence of same.

b) Additional WPS qualifications have been initiated to confirm the acceptable quality of weldments made using the actual parameters noted in the deviation.

B. Prevention of recurrence will be accomplished by (2) two methods:

a) A closer observations by patrol inspection of the actual parameters utilized during the hardfacing applications.

b) A change in the WPS to extend the ranges after successful completion of the WPS qualifications noted in item A.b) under Corrective Action.

C. The timing of the corrective actions noted in items b) under Corrective Action and Prevention of Recurrence will be completed by June 15, 1980.

NRC Finding:

B. Procedure DMP-15-4-5524, Revision 4, requires the placement of two thermocouples (one each on the upper and lower flanges) during post weld heat treatment (PWHT) of pressurizer nozzles.

Contrary to the above, the PWHT chart recording dated April 12, 1980, for a pressurizer nozzle, Shop Order 174, Serial Number W664 A01, revealed just one thermocouple was used.

WPP Response:

(1) The following step has been taken to correct the above item:

The welder that performed the heat treating operation in question was re-instructed to follow the specification as written.

(2) The following step has been taken to prevent recurrence:

A program of stress relieving instructions is now underway for welders that perform stress relieving. This program encompasses stress relieving locally, using wrap around heating elements, and furnace stress relieving. Instruction programs have been completed and documented for two of the three shifts, and the third will be completed and documented by July 31, 1980.

**Note: The stress relief in question is an in-process stress relief. The nozzle will receive a final stress relief after it is welded into the pressurizer upper head assembly.*

C. Additional NRC Concerns:

1. 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 a Summary Heat Treat Record. Information such as shop order, item description, drawing number, procedure number, 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 per hour 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 Response:

When an inspector completes the Summary Heat Treat Record (QIP 2917), he verifies that the heat treatment was performed to the applicable specification. In turn, he references the identification of the specification, such as DMP-15-4-5524 on the face of the summary report. The referenced document contains all the pertinent Code parameters.

2. 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.

WPP Response:

As discussed during the exit interview on April 25, 1980, WPP retains actual heat treat recording charts only when purchase orders require the charts to be forwarded to the customer. Summary heat treat records produce acceptable micro-film records whereas attempts to copy actual charts are time consuming and copies are less than desirable.

3. 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° F to 1150° F....."

One SHTC 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.

WPP Response:

WPP actions to alleviate the above concerns are as follows:

1) *All inspectors involved in the above concerns have attended a class on interpretation and evaluation of heat treat procedutes and stress relieve charts.*

2) *All inspectors that participate in interpretation of stress relieve charts will have attended the instruction class by July 15, 1980.*