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TELEPHONE: AREA 704
373-4083

March 5, 1980

Mr. James P. O'Reilly, Director
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Subject: McGuire Nuclear Station
Docket No. 50-370

Reference: RII:EHG
50-370/80-01

Dear Mr. O'Reilly:

As requested by your letter of February 11, 1980 please find attached a response to the items of noncompliance identified in the subject inspection report.

Duke Power Company does not consider any information contained in IE Inspection Report No. 50-370/80-01 to be proprietary.

Very truly yours,

William O. Parker, Jr. By WHR

William O. Parker, Jr.

LJB:scs

Attachment

MCGUIRE NUCLEAR STATION
RESPONSE TO IE INSPECTION REPORT NO. 50-270/80-01

A. As required by Paragraph (a)(1) of 10 CFR 50.55a, "Structures, systems, and components shall be designed, fabricated and inspected to quality standards commensurate with the function to be performed." For reactor coolant pressure boundary and other safety-related piping this quality standard is identified in the FSAR as ASME Section III. ASME Section III provides minimum weld size requirements for socket welds flanges in Figure NB-4427-1.

Contrary to the above, on January 10, 1980, the licensee's weld process control sheet for ASME Section III Class 1 socket-welding flange welds NC2FW33-20 and -21 in the Reactor Coolant System specified minimum weld sizes below that required by ASME Section III. In addition, the following welds had sizes below the minimum requirements:

Weld	System	Pipe Size	Code Class
NV2FW274-6	Chemical Volume Control	2" Sch 160	2
NV2FW274-10	Chemical Volume Control	2" Sch 160	2
NC2FWFT5070-1	Reactor Coolant	3/4" Sch 160	2
NC2FWFT5060-4	Reactor Coolant	3/4" Sch 160	2
NC2FW43-7	Reactor Coolant	1" Sch 160	1

This is an infraction.

RESPONSE

It was determined that the minimum weld sizes for socket weld flanges and socket weld fittings had been specified to be 1.25T, i.e., 1.25 x the nominal pipe wall thickness. These requirements have been corrected to specify 1.09T for socket weld fittings and 1.4T for socket weld flanges.

In addition, an audit was conducted which included inspection of a sample of flanges and fittings in the following areas on McGuire Unit 2.

(a) Socket weld flanges using greater than Sch. 40 pipe for weld size.
(b) Socket weld flanges using less than Sch. 40 pipe for weld size.
(c) Socket weld fittings using greater than Sch. 40 pipe for weld size.

In regard to Item (a), approximately 50 percent of the welds did not meet the requirements. All remaining welds under this category will be reinspected for weld size and a review will be conducted of the extent of the rejects and the design criteria for these welds. Corrective action in this area will be reviewed with the NRC Principal Inspector upon completion. In regard to Items (b) and (c), findings in these areas were not significant and did not warrant further reinspection of welds in these categories.

B. As required by Criterion V of Appendix B to 10 CFR 50, and implemented by DPC Topical Report Duke 1-A Section 17, Paragraph 17.1.5, "Activities affecting quality shall be accomplished in accordance with the requirements imposed by . . . instructions, procedures and drawings." Procedure F9 Rev. 7 requires that craftsmen responsible for work maintain design drawings at the work location.

Contrary to the above, on January 10, 1980, a Safety Injection System piping subassembly that included weld NI2FW54-21 did not comply with design drawing dimensional requirements and the design was not present at the work station.

This is an infraction.

RESPONSE

Each supervisor maintains the appropriate design drawings for pipe installation. The requirement that these documents be maintained in the work location for access by the craftsmen has been reemphasized. The work location has been defined, at a minimum, as the supervisor's work desk.

In the situation cited, a field installation was incorrectly taken to the fabrication shop for completion without the design drawing accompanying the assembly. In addition, a Variation Notice had been incorporated in the field installation isometric which specified an additional weld that was not required for installation. This weld was not used by the field craftsman, however, the isometric was not appropriately corrected at this time. This discrepancy was documented as a nonconforming item and has been corrected. It should be noted that the assembly would have received a standard configuration inspection prior to installation to assure compliance to the design drawings.

C. As required by Criterion V of Appendix B to 10 CFR 50, and as implemented by DPC Topical Report Duke 1-A Section 17, Paragraph 17.1.5, "Activities affecting quality shall be accomplished in accordance with the requirements imposed by . . . instructions, procedures, and drawings. Procedure M4 Rev 5 requires final visual inspection of welds in accordance with procedure L80 (Rev. 7).

Contrary to the above, on January 10, 1980, the inspector performing final visual inspection on weld NI2FW54-21 did not know how to perform the inspection required to assure compliance with final weld offset requirements stated in procedure L80 (Rev. 7).

This is an infraction.

RESPONSE

All QC welding inspectors have received formal training under the guidance of the Quality Assurance Department to assure that each inspector could perform the inspection required to assure compliance with final weld offset requirements. This training consisted of reemphasizing and clarifying the requirements in Construction Department Procedure L-80. Each QC inspector has received an instrument to adequately perform this inspection.

An audit was conducted to determine if any outside diameter mismatch could be identified in piping. No joints were found to be out of tolerance. All welding inspectors interviewed during this audit had been aware of the mismatch requirements prior to this inspection. This situation was also documented as a nonconforming item.