James A. FitzPatrick
Nuclear Power Plant
268 Lake Road
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NewYork Power Authority

Michael J. Colomb
Site Executive Officer

October 18, 2000
JAFP-00-0244

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, DC 20555

SUBJECT: **James A. FitzPatrick Nuclear Power Plant**
Docket No. 50-333

Response to Request for Additional Information regarding Proposed Alternative for the Repair of Control Rod Drive to Reactor Pressure Vessel Nozzle (RR-26)

References: JAFP-00-0239, Proposed Alternative for the Contingency Repair of Control Rod Drive to Reactor Pressure Vessel Nozzle per Generic Letter 88-01 - Relief Request (RR-26), dated October 15, 2000.

Dear Sir:

On October 18, 2000, your staff requested additional information to support technical review of Relief Request - 26 that was transmitted in Reference 1. This request for information was transmitted verbally via teleconference.

The response to this request for additional information is delineated in Attachment I.

Very Truly yours,

Michael J. Colomb

MJC:MA:las

Cc: next page

STATE OF NEW YORK
COUNTY OF OSWEGO
Subscribed and sworn to before me
this 18th day of October 2000.

TAMMY L. KIEPER 4985563
Notary Public, State of New York
Qualified in Oswego County
Commission Expires 8/19/01

A047

Cc: Regional Administrator
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Office of the Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 136
Lycoming, NY 13093

Mr. Guy Vissing, Project Manager
Project Directorate I
Division of Licensing Project Management
U.S. Nuclear Regulatory Commission
Mail Stop 8C2
Washington, DC 20555

1. Question: What is the Code of Record?

   The Code of Record is ASME XI 1989 Edition.

2. Why is a Code Repair Impractical?

Since the IGSCC flaw begins on the inner surface (inside diameter), the Code repair would require removal of the flaw. This would require replacement of the CRD cap. A second repair option would require grinding out the flaw. This is not considered prudent, as it would result in the repaired area being susceptible to IGSCC. Replacement of the CAP would require draining down the vessel to a level below the affected nozzle to allow the following:

- Machining of the nozzle to remove the Inconel 182 weld "butter" and ID cladding.
- Pre-heat of the nozzle prior to welding.
- Actual welding of the replacement cap to the CRD vessel nozzle.
- Final Post weld heat treatment,

The duration for this code repair would be approximately 5 days to perform the code repair. This would extend the outage duration as presently scheduled by 5 days as this would affect critical path work on the refuel floor while the cap is being replaced.

In addition, if the vessel were drained to a level below the affected nozzle there would be a significant increase in person-rem exposure for the craft labor installing the new cap via the code repair. This increase in exposure has been preliminarily estimated to be in excess of 25 REM.

Installation of the weld overlay with water backing significantly reduces the person-rem exposure versus the code repair.

The alternative weld overlay repair, as described in the relief request, provides an acceptable level of quality and safety while neither lowering water level in the reactor vessel nor applying preheat and post weld heat treatment to the nozzle. In addition, there is a significant person-rem reduction by performing the weld overlay with water backing versus draining down the vessel to a level below the affected nozzle and doing a code repair. The water backing and water level in the reactor vessel provides an significant increase in shielding protection to craft workers.

3. Provide a Sketch of the as found condition of the crack indication - See Figure 1.

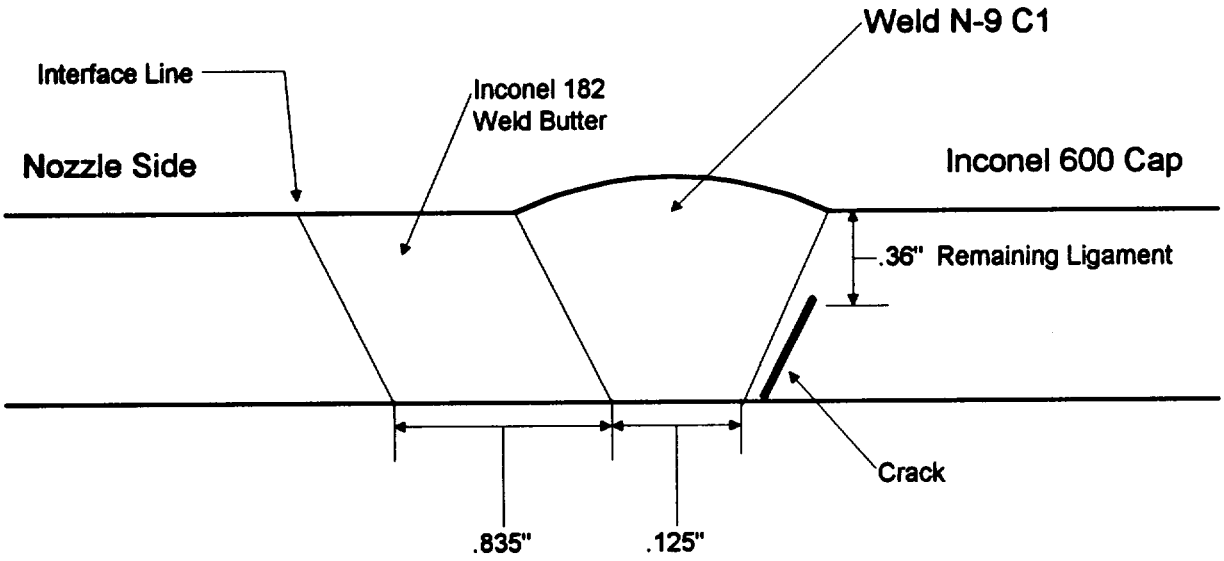

Figure I
Sketch of CRD Cap Weld Crack (Not to Scale)