FPL

JUN 0 7 2002

L-2002-087
10 CFR 50.55a

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250 and 251
ASME Section XI Relief Request Nos. 30 & 31,
Associated With Reactor Vessel Closure Head Repair,
Additional Information

Florida Power & Light Company (FPL) submitted Relief Requests 30 and 31 via letter L-2002-044, dated March 1, 2002. Since that time, two conditions have occurred which warrant the submittal of additional information:

1. As a result of issues with the dissimilar metal weld procedure qualification, FPL will incorporate a methodology to evaluate impact testing of the welding procedure qualification coupon. The criteria is the same as in the ASME Boiler and Pressure Vessel Code, Section III, NB-4335.2(b)(2) and (3). Attachment 1 provides details of the methodology.
2. Several questions were raised by the staff before and during a telephone conference on May 6, 2002. FPL provided verbal responses to these questions during the teleconference; the questions and responses are provided in Attachment 2.

Relief Requests 30 and 31 are needed to support potential corrective actions resulting from any future Reactor Vessel Head Penetration bare metal inspections. Please contact John Manso at (305) 246-6622, if there are any questions about this submittal.

Very truly yours,

John P. McElwain
Vice President
Turkey Point Plant

CLM

Attachments

NRC Regulatory Issue Summary 2001-05 waived the requirements that multiple copies of documents be submitted to the NRC.

A047

Clarification of Weld Procedure Qualification

In Relief Request #30, under discussion of the weld procedure qualification, the following sentence appears (page 4 of 26):

"The average values of the three HAZ impact tests will be equal to or greater than the average values of the three unaffected base metal tests."

As a result of issues with the dissimilar metal weld procedure qualification, FPL will incorporate the following methodology:

If the average Charpy V-notch lateral expansion for the heat affected zone is less than that for the unaffected base metal, and the qualification test meets the other criteria of acceptance, the Charpy V-notch test results may be recorded on the Welding Procedure Qualification Record. Data shall then be obtained as specified below to provide an additive temperature for any base metal for which the welding procedure is being qualified, and shall be included. Alternatively, the welding procedure qualification may be rewelded and retested.

The data to provide an additive temperature shall be developed by performing additional Charpy V-notch tests on either the welding procedure qualification heat affected zone or the unaffected base metal, or both, at temperatures which provide lateral expansion values equal to or greater than 35 mils. The average lateral expansion data for the heat affected zone and the unaffected base metal shall be plotted on a lateral expansion-temperature chart. The temperatures at which these two sets of data exhibit a common lateral expansion value equal to or greater than 35 mils shall be determined. The determined temperature for the unaffected base metal shall be subtracted from the similarly determined temperature for the heat affected zone. This difference shall be used as the adjustment temperature. The adjustment temperature shall be added to the highest nil ductility temperature (RT_{NDT}) for all of the base metal to be welded by this procedure in production. If the temperature difference is zero or is a negative number, no adjustment is required for the base metal to be welded in production.

Summary of May 6, 2002 Teleconference

NRC Question # 1: Relief Request (RR) #30, page 2 of 26, bottom of page, states that if a defect penetrates into the ferritic base metal, repair of the base metal...may be performed. What are the criteria for determining if a base metal defect willl be repaired?

FPL response: A base metal defect repair will be performed, provided the depth of repair in the base metal does not exceed 3/8 inch and the excavation is within the intended new weld boundary.

NRC Question # 2: RR #30, page 6 of 26, states (in two places) that remotely controlled machine processes (remotely operated methods) will be used "to the extent practical." Please explain what processes will be performed using remote methods, and what processes may be done manually if remote processes are not practical.

FPL response: Remotely controlled machine processes are planned for all examination, metal removal and welding. Metal removal and liquid penetrant examination may be done manually if machine processes are not practical.
The lower portion of the thermal sleeves will be severed by remotely operated methods.

NRC Question # 3: RR #30, page 12 of 26, under Relief from NB-6111, FPL states that, "In lieu of hydrostatic testing of the repair, a system leakage test will be performed." Is there a hold time for the leakage test? If so, how long?

FPL response: Yes, there will be a 4 hour hold time for the leakage test, in accordance with Turkey Point procedures.

NRC Question # 4: RR #31, the repair process on page 5 and 8 lists a variety of NDE (PT/UT) examinations that will be performed. What will the acceptance criteria be?

FPL response: The acceptance criteria were stated in RR #30, and are as follows: Liquid penetrant examination acceptance criteria will be in accordance with NB-5350. Ultrasonic examination acceptance criteria will be in accordance with NB-5330.

NRC Questions #5 through 7: RR #31, page 3 of 8:

5. Are the analyses for the postulated cracks, stress calculations and analysis of the new pressure boundary welds discussed complete for Turkey Point?

FPL response: The analyses are not yet complete.

6. If they are - we would like to have a copy. If not, when will we get them?

FPL response: We will work with the vendor to make them available when they are complete. Please understand that the analyses are plant-specific and proprietary.

7. Same for the fracture mechanics evaluation discussed on page 4 of 8.

FPL response: See response to Question #6.

NRC Questions #8 and 9: RR #31:

8. Will weld repairs discussed on page 5 of 8 involve welding over parts of the degraded J-groove weld due to the curvature of the head? If so, do the analyses discussed previously address why this is OK?

FPL response: No, the new weld would not overlap the existing J-groove weld at any point.

9. What are the licensee's intentions for successive inspections of degraded J-groove welds that have repair welds going over them per IWB-2420?

FPL response: Not applicable; see response to Question #8.