



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20540-0001

JUL 23 1996

MEMORANDUM TO: Albert F. Gibson, Director
Division of Reactor Safety
Region II

FROM: Brian W. Sheron, Director
Division of Engineering
Office of Nuclear Reactor Regulation

SUBJECT: STEAM GENERATOR TUBE INTEGRITY ISSUES AT ST. LUCIE UNIT 1

On April 22, 1996, the NRR staff met with representatives of Florida Power & Light, the licensee, to discuss the steam generator tube integrity program at St. Lucie Unit 1. During the meeting, the licensee discussed their steam generator tube inspection plans for the upcoming May 1996 refueling outage. Subsequent to the April 22, 1996, meeting, the licensee submitted a letter dated April 26, 1996, which summarized specific statements made during the meeting concerning activities to be completed for St. Lucie Unit 1 during the May 1996 refueling outage.

During the April 22, 1996, meeting, the licensee also discussed the qualification of their method for sizing axial crack-like indications at the eggcrate supports and in the sludge pile area. The staff expressed some concerns regarding the data used in the qualification process including whether all of the data were analyzed without prior knowledge of the destructive examination results (i.e., blind testing) and the limited amount of data. In addition, the staff expressed concerns regarding the licensee's program for monitoring the flaw morphology over time. Such monitoring is necessary to ensure that the types of indications being observed in the field are similar to the data used in the qualification process. Lastly, the staff commented that it appeared inappropriate to use the sizing technique at locations other than the eggcrate supports and the sludge pile (i.e., at the drilled tube support plate elevations and in the tube free span) since none, or very little, of the qualification data was from these other locations. Qualification of the sizing technique to industry standards was not achieved until March 1996. The licensee subsequently decided not to apply this depth sizing technique to indications in the free span and indications at the drilled tube support plate elevations due, in part, to the staff concerns.

As you are aware, there have been numerous interactions between the NRC and the licensee since April 1996, regarding the licensee's steam generator tube inspection scope, tube repair criteria, and tube integrity assessment methodology. Significant concerns were expressed regarding various aspects of these programs. Many of the concerns stemmed from whether the technique used by the licensee to depth size indications had been rigorously qualified. As mentioned above, the licensee modified their tube repair criteria, in part, due to staff concerns in this area. Since the licensee alluded that they had been depth sizing various indications for several years, the NRR staff

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believes that an inspection of the licensee's historic repair practices and their associated qualification program for sizing indications should be performed to ensure that all applicable regulations have been followed particularly with respect to using qualified procedures for performing non-destructive examinations. I am requesting that Region II initiate such an inspection. Recognizing that qualification standards and industry experience has evolved over time, it is recommended that these factors be considered in such a historic review (e.g., if a licensee develops a qualified bobbin coil sizing technique and a subsequent NRC information notice indicates that depth sizing indications with the bobbin coil poses a significant challenge to the data analysts, a review of the actions taken by the licensee as a result of this information is appropriate, that is, did the licensee requalify their program or set up a program to verify the capabilities of their program).

If you have any questions, please contact either Mr. Ted Sullivan at (301) 415-3266 or Mr. Ken Karwoski at (301) 415-2754.

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