

October 24, 2005

Mr. Dale E. Young, Vice President  
Crystal River Nuclear Plant (NA1B)  
ATTN: Supervisor, Licensing & Regulatory Programs  
15760 W. Power Line Street  
Crystal River, Florida 34428-6708

SUBJECT: CRYSTAL RIVER UNIT 3, UPCOMING STEAM GENERATOR TUBE  
INSERVICE INSPECTION (TAC NO. MC8535)

Dear Mr. Young:

Inservice inspections of once-through steam generator (OTSG) tubes play a vital role in assuring that adequate structural integrity of the tubes is maintained. As required by the plant Technical Specifications, reporting requirements range from notifying the Nuclear Regulatory Commission (NRC) of the following prior to ascension into MODE 4:

1. Number of tubes plugged and repaired;
2. Crack-like indications and assessment of growth for indications in the first span;
3. Results of in situ pressure testing, if performed; and
4. Number of tubes and axially oriented tube end cracks (TEC) indications left in-service, the projected accident leakage, and an assessment of growth for the TEC indications.

Florida Power Corporation is to report the results of the OTSG tube inspections that fall into Category C-3 in accordance with Title 10, *Code of Federal Regulations*, Section 50.72, and submit the complete results of the OTSG inservice inspection to the NRC within 90 days after breaker closure following restart. The report shall include:

1. Number and extent of tubes inspected.
2. Location and percent of wall-thickness penetration for each indication of an imperfection.
3. Location, bobbin coil amplitude, and axial and circumferential extent (if determined) for each first span Pit-like Intergranular Attack indication, and
4. Identification of tubes plugged or repaired and specification of the repair methodology implemented for each tube.

D. Young

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A phone conference has been arranged with members of your staff to discuss the ongoing results of the SG tube inspections to be conducted during the upcoming Crystal River Unit 3 refueling outage. This phone call will occur after the majority of the tubes have been inspected, but before the SG inspection activities have been completed. Enclosed is a list of discussion points to facilitate this phone conference.

The staff plans to document a brief summary of the conference call as well as any material that you may have provided to the staff in support of the call.

Sincerely,

*/RA/*

Brenda L. Mozafari, Senior Project Manager, Section 2  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-302

Enclosure: List of Discussion Points

cc w/enclosure: See next page

D. Young

-2-

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STEAM GENERATOR TUBE INSPECTION DISCUSSION POINTS

PREPARED BY THE OFFICE OF NUCLEAR REACTOR REGULATION

FLORIDA POWER CORPORATION

CRYSTAL RIVER UNIT 3

DOCKET NO. 50-302

The following discussion points have been prepared to facilitate the phone conference arranged with Florida Power Corporation to discuss the results of the steam generator (SG) tube inspections to be conducted during the upcoming Crystal River Unit 3 refueling outage. This phone call is scheduled to occur towards the end of the planned SG tube inspection interval, but before the unit completes the inspections and repairs.

The U.S. Nuclear Regulatory Commission (NRC) staff plans to document a brief summary of the conference call as well as any material that is provided in support of the call.

1. Discuss any trends in the amount of primary-to-secondary leakage observed during the recently completed cycle.
2. Discuss whether any secondary side pressure tests were performed during the outage and the associated results.
3. Discuss any exceptions taken to the industry guidelines.
4. For each SG, provide a description of the inspections performed including the areas examined and the probes used (e.g., dents/dings, sleeves, expansion-transition, U-bends with a rotating probe), the scope of the inspection (e.g., 100 percent of dents/dings greater than 5 volts and a 20-percent sample between 2 and 5 volts), and the expansion criteria. Also, discuss the extent of the rotating probe inspections performed in the portion of tube below the expansion transition region (reference NRC Generic Letter 2004-01, "Requirements for Steam Generator Tube Inspections").
5. For each area examined (e.g., tube supports, dent/dings, sleeves, etc.), provide a summary of the number of indications identified to-date of each degradation mode (e.g., number of circumferential primary water stress corrosion cracking indications at the expansion transition). For the most significant indications in each area, provide an estimate of the severity of the indication (e.g., provide the voltage, depth, and length of the indication). In particular, address whether tube integrity (structural and accident induced leakage integrity) was maintained during the previous operating cycle. In addition, discuss whether any location exhibited a degradation mode that had not previously been observed at this location at this unit (e.g., observed circumferential primary water stress corrosion cracking at the expansion transition for the first time at this unit).

Enclosure

6. Describe repair/plugging plans.
7. Describe in situ pressure test and tube pull plans and results (as applicable and if available).
8. Provide the schedule for SG-related activities during the remainder of the current outage.
9. Discuss the following regarding loose parts:
  13. what inspections are performed to detect loose parts
  14. a description of any loose parts detected and their location within the SG
  15. if the loose parts were removed from the SG
  16. indications of tube damage associated with the loose parts
  17. the source or nature of the loose parts, if known
10. Once-Through SGs- if you have Babcock and Wilcox (B&W) welded plugs installed in the SGs, be prepared to discuss the actions taken in response to Framatome's notification of the effect of tubesheet hole dilation on the service life of B&W welded plugs.
11. Once-Through SGs - discuss any actions taken in response to the severed tube issue during the outage (NRC Information Notice (IN) 2002-02 and IN 2002-02, Supplement 1). If actions are complete, please indicate so.

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Florida Power Corporation

cc:

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