May 24, 2002

MEMORANDUM TO: Thomas Koshy, Acting Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Brendan T. Moroney, Project Manager, Section 2 **/RA/**
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: ST. LUCIE UNITS 1 AND 2, AND TURKEY POINT UNITS 3 AND 4 - SUMMARY OF MAY 14, 2002, CONFERENCE CALL REGARDING THE FLORIDA POWER AND LIGHT COMPANY RESPONSE TO NRC BULLETIN 2002-01 (TAC NOS. MB4571, MB4572, MB4586 AND MB4587 )

On May 14, 2002, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a conference call with Florida Power and Light Company (FPL) representatives to discuss the FPL response dated April 2, 2002, to NRC Bulletin 2002-01, “Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity,” for St. Lucie Units 1 and 2 and Turkey Point Units 3 and 4. Attachment 1 is a list of participants. Attachment 2 is a summary of the discussion regarding the St. Lucie response. Attachment 3 is a summary of the discussion regarding the Turkey Point response.

Based on the discussion, FPL will submit a supplemental response by June 30, 2002.

Docket Nos. 50-250, 50-251, 50-335 and 50-389

Attachments: As stated

cc w/Attachments: See next page

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**LIST OF PARTICIPANTS**

**NUCLEAR REGULATORY COMMISSION STAFF CONFERENCE CALL**

**WITH FLORIDA POWER AND LIGHT COMPANY**

**MAY 14, 2002**

NRC/NRR
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A. Lee
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E. Brown

NRC/REGION II
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E. Belizar
C. Mowrey
W. Parker
J. Manso

Attachment 1

## DISCUSSION REGARDING ST. LUCIE RESPONSE

The discussion addressed the following:

1. Clarify whether or not the bare metal of the reactor pressure vessel (RPV) head was cleaned following the 1978 leakage event at Unit 1.

The licensee stated that there was no documentation of cleaning following the 1978 event. However, the event was a spray down of the reactor containment building from the containment spray system, which occurred during a maintenance outage. The missile shield was likely installed, so there was no direct path for water to reach the RPV head. Also, since the plant was at cold shutdown, there was no concentrating mechanism for boric acid and no significant deposits would have been left on the head.

2. Discuss your basis for concluding that the debris located on the Unit 1 RPV flange in 1996 was not a result of corrosion of the RPV base metal.

The licensee stated that the RPV head flange was cleaned after the event and the debris did not return in subsequent outages. At the start of the 1996 refueling outage, a "water bag" being used for crane load testing broke and spilled several hundred gallons of non-borated water over the area, which may have contributed to the light rust and debris later noted on the flange surface. The flange area was subsequently abrasively cleaned and painted, and there was no recurrence of debris.

The staff asked if there had been any indications of clogged containment filters as described in U.S. Nuclear Regulatory Commission (NRC) Information Notice 2002-13, "Possible Indicators of Ongoing Reactor Pressure Vessel Head Degradation." The licensee stated that they had discussed this with chemistry and radiation protection personnel and were not aware of any incidence of repeated clogged containment filters at either site.

3. Clarify whether or not the visual inspections performed at St. Lucie Unit 1 will include 100 percent of the general surface area of the RPV head (i.e., in addition to the nozzle inspections).

The licensee stated that the planned inspection would include 100 percent of the general area around the head penetrations as required by Bulletin 2001-01. In response to NRC staff questions, the licensee estimated that this would include greater than 90 percent of the total surface area, but no detailed calculation has been done. Access to the RPV head is limited because the insulation is not designed to be removed and is contoured closely with the head surface. The licensee also stated that the flange area would be inspected during head detensioning. The inspection will take place early in the next refueling outage. The NRC staff indicated that they would schedule a conference call prior to plant startup to discuss the results of the inspection.

4. Discuss your plans for submitting the information requested in response to Bulletin Item 1.D for St. Lucie Unit 2.

The licensee had nothing to add beyond what was in their response, but indicated that future inspections will be based on the guidelines currently being developed by the American Society

of Mechanical Engineers and the Electric Power Research Institute Materials Reliability Program.

5. For St. Lucie Unit 2, clarify whether or not the 100 percent inspections performed in response to Bulletin 2001-01 in December 2001 included an inspection of 100 percent of the general surface area of the head. Include a description of any deposits that were located, and whether or not these deposits obscured a significant (greater than 1 sq. in.) region of the RPV head.

The licensee stated that the inspection was as described in no. 3 above, which was a 100 percent inspection of the nozzle areas, and included greater than 90 percent of the total surface area. There were no deposits located, and no indication of leakage was observed. Some areas were initially not visible due to accumulations of insulation, dirt, and other debris (which were removed by blowing them with air) or loose insulation collars (which were moved out of the way). The licensee stated that they also conducted a final visual inspection to check for foreign materials, which probably included additional areas that were not part of the inspection.

## DISCUSSION REGARDING TURKEY POINT RESPONSE

The discussion addressed the following:

1. For Turkey Point Units 3 and 4, clarify whether or not the 100 percent inspections performed in response to Bulletin 2001-01 included an inspection of 100 percent of the general surface area of the reactor pressure vessel (RPV) head. Discuss whether or not the inspections identified any deposits on the RPV head, and if any significant regions of the RPV head (greater than 1 sq. in.) were obscured by deposits.

The licensee stated that the insulation configuration at Turkey Point is different from that at St. Lucie, in that Turkey Point has blanket insulation. The licensee removed all the insulation and lifted the shroud in order to perform the inspection, thus, they essentially had 100 percent accessibility of the RPV general area. Using a crawler, they inspected 100 percent of each nozzle. The inspection included taking pictures 360 degrees around each nozzle. The licensee did vacuum clean the RPV head after the completion of the inspection of the Unit 4 head.

2. Discuss your plans for submitting the information requested in response to Item 1.D. (schedule, plans, and basis for future inspections of the RPV head and penetration nozzles including method, scope, frequency, qualification requirements, and acceptance criteria).

This comment is similar to comment No. 4 for St. Lucie. The licensee documented its response in the 15-day response dated April 2, 2002. They had nothing to add. Future inspections will be performed in accordance with the guidelines being developed by the American Society of Mechanical Engineers and the Electric Power Research Institute Materials Reliability Program working groups.

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**ST. LUCIE PLANT**
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