



December 4, 2003

L-2003-300
10 CFR 50.55a

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

Re: St. Lucie Unit 1
Docket No. 50-335
Inservice Inspection Program
Second Ten-Year Interval
Relief Request 19 - Request for Additional Information Response

By letter L-2003-187 dated July 30, 2003, Florida Power and Light Company (FPL) requested approval of Relief Request (R/R) 19 for the third ten-year inservice inspection interval. The Inservice Inspection (ISI) Program currently requires inspections on piping in accordance with the requirements of the ASME Boiler and Pressure Vessel Code Section XI, 1989 Edition as required by 10CFR50.55a. St. Lucie Unit 1 is currently in the third inspection interval as defined by the ASME Section XI Code for Program B.

The draft request for additional information (RAI) and the FPL proposed responses were discussed with the NRC during a conference call on October 30, 2003. On November 6, 2003, the NRC issued the RAI. The response to the staff's requests is attached.

The objective of the R/R was to change the ISI Program plan for Class 1 piping only, through the use of a Risk-Informed Inservice Inspection (RI-ISI) Program. The risk-informed process used in the submittal is described in Westinghouse Owners Group WCAP-14572, Revision 1-NP-A, Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report. As a risk-informed application, the submittal met the intent and principles of Regulatory Guide (RG) 1.174, *An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis*, and RG 1.178, *An Approach for Plant-Specific Risk-Informed Decision Making: Inservice Inspection of Piping*.

FPL requested approval of the enclosed relief request by January 31, 2004 to support its use during the spring 2004 refueling outage (SL1-19). If you require any additional information, please contact George Madden at 772-467-7155.

Very truly yours,

William Jefferson, Jr.
Vice President
St. Lucie Plant

WJ/GRM

Attachment

A047

ST. LUCIE UNIT 1
RESPONSE TO NRC RAI ON RISK-INFORMED INSERVICE INSPECTION (RI-ISI)
RELIEF REQUEST NO. 19

NRC Question 1:

Attachment 1, Section 1.2 (Enclosure page 6) states that, "[t]he version of the Level 1 model used for input to the RI-ISI submittal is dated February 1999. The version of the Level 2 evaluation used is dated May 2001." Page 6 of the submittal further states that the St. Lucie Unit 1 Probabilistic Safety Assessment (PSA) baseline core damage frequency (CDF) and large early release frequency (LERF) are 1.45E-5/year and 3.43E-6/year, respectively.

In a letter dated January 16, 2003, FPL provided a response to the U.S. Nuclear Regulatory Commission Request for Additional Information regarding Relief Request 29 for St. Lucie Unit 2. In Attachment 1, Page 5 of that letter, the response to RAI 10 provided the same text regarding the St. Lucie Unit 2, i.e., "[t]he version of the Level 1 model used for input to the RI-ISI submittal is dated February 1999. The version of the Level 2 evaluation used is dated May 2001." Page 3 of Attachment 2 to that letter reported a CDF and LERF of 1.25E-5/year and 6.00E-6/year, respectively, for Unit 2.

Please confirm that Unit 1 and Unit 2 have different PSA models and different CDF and LERF estimates or explain why the reported estimates differ between the two submittals.

Response 1:

There are separate PSA models for Unit 1 and Unit 2 and the baseline CDF and LERF estimates are different. Although the Unit 1 and Unit 2 designs are very similar, there are some differences that warrant separate models.

Example unit differences reflected in the models:

- (a) The Unit 2 power operated relief valves (PORVs) are larger than the Unit 1 valves. Success criteria for scenarios where once-through-cooling (OTC) is initiated early in an event (i.e., with a higher decay heat load/high reactor coolant system (RCS) pressure) is 2-out-of-2 PORVs for Unit 1 and 1-out-of-2 PORVs for Unit 2.
- (b) The Unit 2 condensate storage tank (CST) is larger than the Unit 1 CST. The Unit 2 CST can thus support longer auxiliary feedwater (AFW) operation before makeup is required.
- (c) Main feedwater (MFW) is isolated on a safety injection actuation signal (SIAS) on Unit 1 but not on Unit 2.

NRC Question 2:

Attachment 1, Section 1.2 (Enclosure page 11) of the current submittal and the response to RAI 10 in the January 16, 2003, letter both discuss a Combustion Owner's Group peer review that was conducted during the week of May 20, 2002.

If there are two different PSA models, please explain how the peer review facts and observations reflect the two different models. Do the reported facts and observations include the review of the PSA for both Unit 1 and Unit 2?

Response 2:

Both Unit 1 and Unit 2 PSA models and documentation were provided to the peer review team. As part of the peer review, the team was given a presentation by the FPL PSA staff related to the key St. Lucie design features. This presentation included a discussion of key modeling differences between Unit 1 and Unit 2. The peer review team focused on the Unit 1 PSA but did include a review of unique features of the Unit 2 PSA that might impact the risk profile. The peer review team facts and observations were generally related to non-unit specific issues (e.g., process, documentation, etc).