UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 44 TO FACILITY OPERATING LICENSE NO. DPR-67

FLORIDA POWER & LIGHT COMPANY

ST. LUCIE PLANT, UNIT NO. 1

DOCKET NO. 50-335

Introduction

We have evaluated the following Florida Power & Light Company (FPL and the licensee) proposed changes to the St. Lucie Unit 1 Technical Specification:

1. May 11, 1981 FPL submittal regarding hydraulic and mechanical snubbers.
2. July 23, 1981 FPL submittal regarding control element assembly (CEA) guide tube sleeves.

Our evaluations are presented below.

Snubbers

Numerous discoveries of inoperative snubbers from 1973 to 1975 resulted in snubber surveillance requirements being placed in the Technical Specifications for operating reactors. Several deficiencies were identified after the original requirements were in force for a few years. These deficiencies are:

1. Mechanical snubbers were not included in these requirements.
2. The rated capacity of snubbers was used as a limit to the inservice test requirement.
3. NRC approval was necessary for the acceptance of seal materials.
4. Inservice test requirements were not clearly defined.
5. In-place inservice testing was not permitted.

Since mechanical snubbers were not subject to any surveillance requirements, some licensees believed that mechanical snubbers were preferred by the NRC. Many licensees used mechanical snubbers as original equipment and may others requested approval to replace their hydraulic snubbers with mechanical ones to simplify or avoid an inservice surveillance

program. This is contradictory to the intent of snubber Technical Specifications since, for an unsurveyed mechanical snubber, the most likely failure is permanent lock-up. This failure mode can be harmful to the associated system piping during normal plant operation.

During the period 1973-1975, when the first hydraulic snubber surveillance requirements were drafted, a compromise was made to limit the testing of snubbers to those with rated capacity of not more than 50,000 lbs. This was because of the available capacity of the test equipment and the requirement to test some parameters at the snubber rated load. Since then, greater equipment capacity and a better understanding of parametric correlation have been developed. To maintain this arbitrary 50,000 lb. limit could mean an unnecessary compromise to plant safety.

The original hydraulic snubber problems started with leaking seals. Most seal material of the 1973 vintage could not withstand the temperature and irradiation environments. Ethylene propylene was the first material that could offer a reasonable service life for the seals. In order to discourage the use of unproven material for the seals, the words "NRC approved material" were used in the Technical Specifications. As a result we were asked to approve different seal material on many occasions. Since the basis for that approval was not defined, our reviews were hampered and the development of better seal materials by the industry was actually discouraged.

The acceptance criteria in the earlier version of the testing requirements were not well defined and resulted in non-uniform interpretations and implementation. This resulted in problems in inspecting the conduct of snubber surveillance. In some cases, snubbers were tested without reference to acceptance criteria.

Testing of snubbers was usually accomplised by removing snubbers from their installed positions, mounting them on a testing rig, conducting the test, removing them from the rig, and reinstalling them in the working position. Many snubbers were damaged during removal and reinstallation, defeating the purpose for conducting the tests. Methods and equipment have been developed which allow in-place tests of snubbers. Taking advantage of these developments could result in minimizing the damage to snubbers caused by removal and reinstallation plus possible savings of time and cost.

As a result of these deficiencies we prepared revised model Technical Specifications regarding snubbers and sent them to FPL on November 20, 1980. The revised model technical specifications correct the deficiencies discussed above in the following manner:

1. Mechanical snubbers are now included in the surveillance program.

2. No arbitrary snubber capacity is used as a limit to the inservice test requirements.

3. Seal material no longer requires NRC approval. A monitoring program is used to assure that snubbers are functioning within their service life.

4. Inservice test requirements for snubbers are more clearly defined.

5. In-place inservice testing is permitted.

By letter dated May 11, 1981, the licensee proposed a change to the snubber Technical Specifications which will put in effect the improvements listed above. The licensee's proposal did omit the requirement to test snubbers of the same design as one which, based on the licensee's evaluation, fails due to a manufacturer or design deficiency. The licensee's staff has agreed to include this requirement as it appears in the model Technical Specifications. We have determined that, with this addition, the licensee's proposed snubber Technical Specifications are acceptable.

CEA Guide Tube Sleeves

By letter dated July 6, 1981 we informed FPL that we accepted NRC approved CEA guide tube sleeves as a solution to the wear problem. Also we requested that FPL propose a change to the Design Features (Section 5) of the St. Lucie Unit 1 Technical Specifications which would require NRC approved sleeves as part of the design of fuel assemblies located under CEA's.

By letter dated July 23, 1981 FPL proposed the requested change and we find this change acceptable.

Conclusion

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: October 14, 1981