



UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
FLORIDA POWER & LIGHT COMPANY ) Docket Nos. 50-250 (SP)  
 ) 50-251 (SP)  
(Turkey Point Nuclear Generating )  
Units 3 and 4) )

ORDER REQUESTING ADDITIONAL INFORMATION

(October 11, 1979)

Dr. Luebke has brought the following matter to the attention of the Board:

In a nuclear power plant, there are three very important physical barriers that are designed to prevent radioactivity from fission products to reach the outside world. These are:

1. The slender sealed metal tube of the fuel element that contains the uranium fuel.
2. The thick steel reactor pressure vessel and associated pipes and components that contain the primary reactor coolant.
3. The larger concrete encased steel reactor building built as a pressure vessel and designed to be the final containment to prevent leakage of radioactivity.

The replacement of a steam generator involves the opening of two of these radioactivity retention barriers, the primary

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coolant envelope and the reactor containment building. It is the view of the Board that the prepared documents, Licensee's SGRR and Staff's SER, do not give sufficient emphasis to the importance of these critical radioactivity retention barriers. In particular, they do not emphasize the special care and precaution to be taken in materials, procedures and workmanship to reclose and reseal these barriers; also, the very special attention that must be given to inspection and testing after the closure.

Examples:

1. The replacement of a large radioactive component, such as the steam generator, is not as "routine" as suggested in SGRR § 1.3.

"1.3 10 C.F.R. 50-59 CONSIDERATIONS

Repair or replacement of equipment at a power plant, performed in accordance with appropriate procedures, is a maintenance activity that is routinely conducted."

2. Response to Staff question 15 at SGRR A-15-1 does not emphasize or explain the leak testing of the resealed equipment hatch of the reactor containment building.

"15. Present your preoperational testing program and your startup testing program for placing a unit back in service with the modified steam generators. Identify all the systems and instrumentation to be tested or recalibrated.

RESPONSE

The preoperational and startup test program is still being developed at this time and thus, certain details remain to be determined . . .".

The earlier statement in the SGRR regarding this appeared as 4 lines:

"4.0 RETURN-TO-SERVICE TESTING

Following steam generator repair, a preoperational testing program will be conducted as required to provide the necessary assurance that the facility can be operated in accordance with design requirements and in a manner that will not endanger the health and safety of the public."

3. SER § 2.4 notes that the preoperational and startup test programs are still being developed. SER § 2.5 does not mention the leak test of the Reactor Containment Building.

The Board requests that Licensee and Staff address in greater detail the problem of assuring the continued integrity of the radioactivity retention barriers, either in supplements to the prepared documents or in their prefiled testimony before the evidentiary hearing.

It is so ORDERED.

FOR THE ATOMIC SAFETY AND  
LICENSING BOARD

  
Elizabeth S. Bowers, Chairman

Dated at Bethesda, Maryland  
this 11th day of October 1979.