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SUBJECT: Forwards revised significant hazards determination re license amend request on radiation safety sys upgrade.

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H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23
REVISED SIGNIFICANT HAZARDS DETERMINATION

Gentlemen:

Carolina Power & Light Company (CP&L) submitted a license amendment request to support a radiation monitoring system upgrade at H. B. Robinson Steam Electric Plant Unit No. 2. As a result of discussions with your staff on September 6, 1990, and August 24, 1990, CP&L is providing a revised significant hazards determination, attached.

Yours very truly,

A. B Cutter
Vice President
Director - Special Nuclear Projects

JSK/ecc (808RNP)
Attachment

cc: Mr. R. Lo
Mr. S. D. Ebneter
Mr. L. Garner

A. B Cutter, having been first duly sworn, did depose and say that the information contained herein is true and correct to the best of his information, knowledge and belief; and the sources of his information are officers, employees, contractors, and agents of Carolina Power & Light Company.

Rebecca R. Poole
Notary (Seal)

My commission expires: 6/8/91

411 Fayetteville Street • P. O. Box 1551 • Raleigh, N. C. 27602

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Attachment

The basis for the determination that the proposed amendment does not involve significant hazards consideration is as follows:

1. Operation of the facility, in accordance with the proposed amendment, would not involve a significant increase in the probability or consequences of an accident previously analyzed.

   Regarding the probability of previously analyzed accidents, the instrumentation changes which require the proposed amendment merely provide effluent accountability. Neither the existing monitors nor the new monitors participate in any accident sequence, therefore, the new monitors cannot increase the probability of any accident previously evaluated. This proposed amendment does not increase the probability of a previously evaluated accident because it upgrades instrumentation designed to follow the course of an accident and thereby reduces the probability of equipment malfunction. This equipment does not perform any control function associated with any analyzed accident.

   Regarding the consequences of an accident previously analyzed, the equipment which requires the proposed amendment is not required to function to mitigate the consequences of an accident. Further, eliminating the need to divert condenser discharge from the atmospheric vent to the plant vent on high activity levels eliminates the consequences of equipment malfunction since the condenser air radiation monitor no longer performs a control function. Replacing the two plant vent gas monitors with a single monitor does not increase the consequences of an equipment malfunction since the two monitors do not perform redundant waste gas system isolation functions and the capability to obtain grab samples of the plant vent is provided and required in the event of a failure of the plant vent monitor.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. The equipment changes which require the proposed amendment upgrade plant vent monitoring equipment and permanently divert condenser air ejector discharge to the plant vent. The new equipment performs the same function as the existing equipment. No different operating conditions or functions associated with this project are created, therefore, the proposed amendment does not create the possibility of a new or different accident from any accident previously evaluated.

3. Operation of the facility, in accordance with the proposed amendment, would not involve a significant reduction in a margin of safety.

   Although the plant vent radiation monitor does not perform any safety related functions to prevent or to mitigate the consequences of any analyzed and unanalyzed accidents, its operation is a Technical Specification item and is required to monitor and assure that plant operation is within limits. The five detectors associated with the replacement plant vent radiation monitoring system have equal or greater equipment performance specifications compared to the existing detectors.

The detection of particulate radiation also improves because the new isokinetic sample nozzles have a greater particle collection efficiency. The replacement plant vent radiation monitors are installed in the same location as the existing off line detectors, so there is no significant change in the sample transport tubing. Therefore, there is no significant decrease in a margin of safety.

This effort requires changes to the plant Technical Specifications to correctly identify instrumentation which monitor plant gaseous effluents. The Technical Specifications will also be revised to eliminate the requirements of the condenser evacuation system radiation monitoring equipment. This equipment is no longer a Technical Specification requirement since effluents from this system are discharged to the plant vent and are monitored by the plant vent radiation detection equipment. At present, there are two low range noble gas detectors monitoring the plant vent. One detector provides isolation of the waste gas system on high activity level plus indication and alarm functions. The second detector provides backup indication and alarm functions only. These two low range noble gas detectors are replaced with a single low range gas detector. This single detector provides the control, indication, and alarm functions of the existing two detectors. The new detector incorporates present-day technology with highly reliable components for improved performance and operability. Manual sampling of the specific release paths and of the plant vent are required by the operating procedures should the plant vent monitor fail; therefore, the proposed amendment does not involve a significant reduction in a margin of safety.