

June 6, 1979

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Mr. James P. O'Reilly, Director  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 & 2  
LICENSE NOS. DPR-71 AND DPR-62  
DOCKET NOS. 50-325 AND 50-324  
RESPONSE TO INFRACTIONS OF NRC REQUIREMENTS

Dear Mr. O'Reilly:

In your letter of May 14, 1979, you forwarded a copy of IE Inspection Reports 50-324/79-17 and 50-325/79-17 for the Brunswick Steam Electric Plant Unit Nos. 1 and 2. We have reviewed this report and find that it does not contain any information of a proprietary nature.

The report identified thirteen items that appear to deviate from requirements to the NRC. These items and Carolina Power & Light Company's response to them are addressed in the following text:

INFRACTION:

1. As required by Provision 3.7.8 of the Technical Specifications, all penetrations in fire barriers protecting safety-related equipment are to be functional at all times. In the event one or more of the required barriers become nonfunctional, a limiting condition for operation is required to be established within one hour, consisting of a fire watch on at least one side of the penetration, or operability of the fire detection system(s) providing coverage on each side of the non-functional barrier(s) is to be verified. Contrary to the above, on April 17 and 18, 1979, approximately 50 percent of the approximately 75 fire doors in the fire barriers protecting safety-related equipment throughout Unit Nos. 1 and 2 were found to be non-functional. A limiting condition for operation had been established for only five of these non-functional fire barrier penetrations.

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CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

All doors identified as being non-functional had the following action(s) taken on or before the exit interview on April 20, 1979:

1. Door was made functional, or
2. The action provisions of Technical Specification Item 3.7.8., Penetration Fire Barrier, were enacted and the requirements of FP-8, Fire Barrier Penetration Seal - Work Permit Control, were invoked.

Preventive Actions:

As a means of minimizing the likelihood of future such violations occurring, the following actions were taken:

1. A memorandum to all members of plant management was written. This memorandum identified the problem and requested that each member of plant management discuss the problem with personnel under his supervision. Attached to the memorandum was a paper which defined the terms "fire barrier" and "fire barrier penetration seal," and which provided guidance on the conduct of work related thereto. Also attached was a copy of FP-8, Fire Barrier Penetration Seal - Work Permit Control. A copy of this package was also forwarded to the Power Plant Construction Department.
2. A series of employee training meetings has been scheduled to ensure that personnel are familiar with the fire barrier penetration seal requirements. As of May 25, 1979, 85% of the plant staff have attended one of these training sessions. All of these sessions will have been given by June 6, 1979.

INFRACTION:

2. As required by Provision 3.7.7.2 of the Technical Specifications, the automatic sprinkler system for the makeup water treatment building, is required to be operable to provide protection for the fire pumps located within this building. In the event the sprinkler system becomes inoperable, a limiting condition for operation consisting of a fire watch with backup fire suppression equipment is required to be established within one hour.

Contrary to the above, the sprinkler system for the makeup water treatment building was found inoperable on April 17, 1979, and the required limiting condition for operation had not been established.

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

The sprinkler system was returned to operability immediately following the discovery of the shut valves.

Preventive Action

To avoid further noncompliance, the valves were locked in the proper position in accordance with the provisions of Fire Procedure FP-10, Fire Suppression System Valve Control. Also, Operations personnel have been given a schedule of Fire Protection Plant Modification completion dates so that they can verify valve lineup as the system is made operable.

DEVIATION:

3. Oil retainer system for the oil bath air intake filters in the fan room of the diesel generator building had not been installed (SER 3.1.2.7 and 5.8.6).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Work on this item was placed on a high priority basis when the problem was identified. The barriers are now complete.

Preventive Action:

Preventive action for all deviation items is discussed elsewhere.

DEVIATION:

4. Automatic sprinkler system for the water treatment building had been installed, but the installation did not meet the criteria of National Fire Protection Association (NFPA) Standard No. 13, "Sprinkler Systems" in that the sprinkler heads were located an excessive distance from the ceiling (SER 3.1.11 and 4.3.1(2)).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Engineering has generated a design change to have this problem corrected. A follow-up response to this reply will identify the date on which completion of this project is expected.

DEVIATION:

5. Additional fire detectors were installed throughout the plant; however, the installation of the new, as well as many of the existing, detectors did not meet the criteria of NFPA-72E, "Automatic Fire Detectors," as recommended by NFPA-72D, in that the spacing between detectors in some areas was excessive; detectors were not installed at the ceilings in many areas, and in some areas, detectors were installed on the bottom of large beams (SER 3.1.4 and 4.2).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Engineering has retained the services of a manufacturer's representative to review the existing detector installation for both code compliance and compliance with detector application guidelines provided by the manufacturer. This review will begin on or before June 1, 1979. The projected completion date for the necessary changes will be provided in our follow-up response.

DEVIATION:

6. The number of portable fire extinguishers provided for the diesel generator building basement area, control room, cable spreading rooms and battery rooms do not meet the minimum number, spacing and/or installation requirements of NFPA-10, "Portable Fire Extinguishers" (SER 3.1.12 and 4.3.3).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

The requisite extinguishers to achieve compliance with NFPA-10 are on order and will be installed on or before July 27, 1979.

DEVIATION:

7. Portable smoke removal fans with flexible ductwork for fire brigade use were not available (SER 3.1.22 and 4.4.1).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Portable smoke removal fans with flexible ductwork have been on order for some time. To date, approximately half of this order has been received. Based on current delivery dates, all of this equipment should be available on or before June 30, 1979.

DEVIATION:

8. Redundant pressure sensing line from the fire pump discharge piping to the pressure switch within each fire pump controller was not provided (SER 4.3.1(2) and Carolina Power & Light letter of December 16, 1977).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Engineering is developing a design change to have this problem corrected. The projected completion date for this change will be provided in our follow-up response.

DEVIATION:

9. The 67 fire doors in low personnel traffic areas protecting safety-related equipment had not been provided with devices connected an alarm panel in a constantly manned location to supervise these fire doors in the proper position (SER 4.9.2).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

The hardware for alarming the fire doors is in place. Checkout and adjustment of the alarm system is in progress. Due to problems encountered in the start-up of this system, a realistic completion date cannot be given at this time. Our forthcoming follow-up response will provide you with a realistic projection of the operability date.

DEVIATION:

10. Fire hydrant hose house equipped with fire hose and other fire-fighting equipment was not installed for the fire hydrant adjacent to the service water intake structure (SER 3.1.8 and 4.3.1(3)).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

A properly equipped hose house is now installed and adjacent to the Service Water Building fire hydrant.

DEVIATION:

11. Water flow alarms provided for the deluge sprinkler systems for the standby gas treatment systems are of a type susceptible to damage from water flow through the piping system and the use of these type flow alarms in deluge sprinkler systems is prohibited by NFPA-13 (SER 4.3.1(5) and Carolina Power & Light letter of June 23, 1977).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Engineering is developing a design change to resolve this problem. The projected completion date for this change will be provided in our follow-up response.

DEVIATION:

12. Control valves in the fire protection systems were not all locked in the correct position, or provided with tamper-proof seals (SER 3.1.20 and 4.3.1(3)).

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

All existing fire system valves, the inadvertent closure (opening) of which could interrupt the supply of water to systems providing fire protection to safety-related areas or equipment, have been locked in the open (closed) position. New system valves will be included under this control system after the appropriate Plant Modification has been completed.

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DEVIATION:

13. Vents from the diesel fuel day tanks beneath each diesel generator terminated within the diesel generator building in lieu of outside the building as required by NFPA-30, "Flammable and Combustible Liquids Code."

CAROLINA POWER & LIGHT COMPANY RESPONSE:

Corrective Action:

Engineering is working up a modification to route the existing day tank vents to the outside of the building. The project completion date for this change will be provided in our follow-up response.

Preventive Action:

Although the specific reasons why each item identified above was not completed vary from item to item, the underlying cause is the same--the commitment date was too restrictive, considering the quantity of work to be accomplished, the operating condition of the plant, other work which had to be done concurrently, and the availability of personnel. The fire protection modifications constituted the first major modification work performed in an operating nuclear plant which impacted virtually every area of the plant and almost every phase of plant operations. The experience gained in this work will be of significant value in preventing similar problems with projects of equivalent magnitude.

FOLLOW-UP REPORT:

As stated above, the Company will forward to the NRC no later than July 27, 1979, a report identifying the specific dates on which each of the deviations identified above will be completed. This delay in providing the completion dates is necessary to prevent making unrealistic estimates of completion dates as occurred previously. By the July 27 date, the detailed nature and extent of the work necessary to resolve the deviations should be known, schedules for receipt of

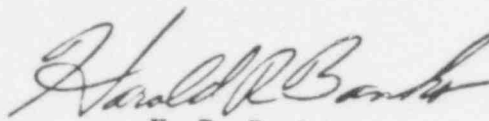
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the materials should be identified, and the sequencing of the work should be detailed. All of this information will be needed to provide an accurate completion date.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Harold R. Banks".

H. R. Banks  
Manager  
Nuclear Generation

CSB:REP:RMP:jmb\*

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