CP&L

Carolina Power & Light Company
PO Box 10429
Southport NC 28461-0429

William R. Campbell
Vice President
Brunswick Nuclear Plant

SERIAL: BSEP 96-0181

MAY 10 1996

United States Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324/LICENSE NOS. DPR-71 AND DPR-62
NRC BULLETIN 96-02, "MOVEMENT OF HEAVY LOADS OVER SPENT FUEL, OVER FUEL IN THE REACTOR CORE, OR OVER SAFETY-RELATED EQUIPMENT"

Gentlemen:

The purpose of this letter is to provide Carolina Power & Light Company's (CP&L) 30-day response to NRC Bulletin 96-02, "Movement of Heavy Loads Over Spent Fuel, Over Fuel In The Reactor Core, or Over Safety-Related Equipment." Enclosure 1 provides a summary of the results of CP&L's evaluation of the bulletin. Enclosure 2 provides a list of the regulatory commitments contained in the response.

Please refer any questions regarding this letter to Mr. Mark Turkal at (910) 457-3066.

Sincerely,

William R Campbell

William R. Campbell

GMT/

Enclosures:
1. Response
2. List of Regulatory Commitments

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William R. Campbell, 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, and agents of Carolina Power & Light Company.

Gwendolyn R. McIlwitte
Notary (Seal)

My commission expires: August 12, 1996

cc: U. S. Nuclear Regulatory Commission
ATTN.: Mr. Stewart D. Ebneter, Regional Administrator
101 Marietta Street, N.W., Suite 2900
Atlanta, GA 30323-0199

Mr. C. A. Patterson
NRC Senior Resident Inspector - Brunswick Units 1 and 2:

U.S. Nuclear Regulatory Commission
ATTN.: Mr. David C. Trimble, Jr. (Mail Stop OWFN 14H22)
11555 Rockville Pike
Rockville, MD 20852-2738

The Honorable H. Wells
Chairman - North Carolina Utilities Commission
P.O. Box 29510
Raleigh, NC 27626-0510

ENCLOSURE 1

BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2
NRC DOCKET NOS. 50-325 AND 50-324
OPERATING LICENSE NOS. DPR-71 AND DPR-62
NRC BULLETIN 96-02, MOVEMENT OF HEAVY LOADS OVER SPENT FUEL, OVER FUEL IN THE REACTOR CORE, OR OVER SAFETY-RELATED EQUIPMENT

On April 11, 1996, the NRC issued Bulletin 96-02, "Movement of Heavy Loads Over Spent Fuel, Over Fuel in the Reactor Core, or Over Safety-Related Equipment." Carolina Power & Light Company (CP&L) has evaluated the practices applicable to the Brunswick Steam Electric Plant, Units 1 and 2 per Bulletin 96-02. A summary of the results are as follows:

NRC Requested Action

Review plans and capabilities for handling heavy loads while the reactor is at power (in all modes other than cold shutdown, refueling, and defueled) in accordance with existing regulatory guidelines. Determine whether the activities are within the licensing basis and, if necessary, submit a license amendment request. Determine whether changes to Technical Specifications will be required in order to allow the handling of heavy loads (e.g., the dry storage canister shield plug and associated lifting devices) over fuel assemblies in the spent fuel pool.

NRC Required Response 1

For licensees planning to implement activities involving the handling of heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment within the next 2 years from the date of this bulletin, provide the following:

> *A report, within 30 days of the date of this bulletin, that addresses the licensee's review of its plans and capabilities to handle heavy loads while the reactor is at power (in all modes other than cold shutdown, refueling, and defueled) in accordance with existing regulatory guidelines. The report should also indicate whether the activities are within the licensing basis and should include, if necessary, a schedule for submission of a license amendment request. Additionally, the report should indicate whether changes to Technical Specifications will be required.*

CP&L Response

As requested by NRC Bulletin 96-02 dated April 11, 1996, Carolina Power & Light Company (CP&L) has reviewed the plans and capabilities of the Brunswick Steam Electric Plant, Units 1 and 2 relative to the handling of heavy loads while the reactor is at power. The review included the May 18, 1984, NRC letter on Control of Heavy Loads (Phase 1) for the Brunswick Steam Electric Plant, Units 1 and 2, with enclosed Technical Evaluation Report. No unresolved issues regarding the handing of heavy loads per NRC Bulletin 96-02

were noted. The results of the review indicated that CP&L's Brunswick Plants are conforming to the NRC Generic Letter (unnumbered) dated December 22, 1980, the supplement issued February 3, 1981 (Generic Letter 81-07) regarding NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants," the clarification of Generic Letter 81-07 issued December 19, 1983, and the Updated Final Safety Analysis Report. The NRC letter dated June 28, 1985, Completion of Phase II of "Control of Heavy Loads at Nuclear Power Plants" NUREG-0612, considered Phase II completed based on the improvements in heavy loads handling obtained during the implementation of Phase I. The review identified that the current procedure controlling the handling of heavy loads did not contain a requirement to perform an engineering evaluation for heavy load lifts that deviate from safe load paths. The requirement for an engineering evaluation was located in the procedure section that only involved use of the Reactor Building Crane. Therefore, the possibility existed for non-routine heavy load lifts to be made without engineering involvement. Administrative actions have been put in place to insure engineering involvement, pending completion of a procedure revision. The review identified no need for changes to the licenses or Technical Specifications to support the handling of heavy loads.

NRC Required Response 2

For licensees planning to perform activities involving the handling of heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power (in all modes other than cold shutdown, refueling, and defueled) and that involve a potential load drop accident that has not previously been evaluated in the FSAR, submit a license amendment request in advance (6-9 months) of the planned movement of the loads so as to afford the staff sufficient time to perform an appropriate review.

CP&L Response

The Brunswick Plant currently has no plans to handle heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power and that involve a potential load drop accident that has not been previously evaluated in the Updated FSAR and the Company's responses to the NRC Generic Letter dated December 22, 1980 and NUREG-0612.

It should be noted that CP&L is following a plan for the transfer of spent fuel from the Brunswick Plant to the Shearon Harris Nuclear Power Plant using an IF-300 shipping cask. The Brunswick Plant has established safe load paths for the shipping cask that avoid movement over spent fuel, fuel in the reactor core, or safety related equipment. While the Reactor Building crane did not strictly meet the criteria recommended in NUREG-0612 for being single failure-proof, it was presented for consideration as single failure-proof in CP&L's November 16, 1982 response on the Control of Heavy Loads. This response referenced CP&L's June 18, 1976 letter as providing the details for the Reactor Building crane. The Technical Evaluation Report/Safety Evaluation issued by the NRC's letter dated May 18, 1984 evaluated CP&L's response in relation to Section 5.1.1 of NUREG-0612 and acknowledged that the Brunswick Plant satisfies these regulatory guidelines, and has an approved single-failure-proof crane. In addition, the special lifting device used for the IF-300

shipping cask provides the necessary redundancy. Section 5.1.4 of NUREG-0612 stipulates that a load drop analysis need not be performed if the Reactor Building crane and associated lifting devices meet single-failure-proof guidelines.

The Reactor Building crane with a four point lift system is also used to move the Drywell head and it's associated shield blocks. A review of the May 18, 1984, NRC letter on Control of Heavy Loads (Phase I) for the Brunswick Steam Electric Plant, Units 1 and 2, with enclosed Technical Evaluation Report, and the associated correspondence was conducted and revealed no unresolved issues regarding the handling of heavy loads per NRC Bulletin 96-02.

NRC Required Response 3

For licensees planning to move dry storage casks over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power (in all modes other than cold shutdown, refueling, and defueled) include in item 2 above, a statement of the capability of performing the actions necessary for safe shutdown in the presence of radiological source term that may result from a breach of the dry storage cask, damage to safety-related equipment as a result of a load drop inside the facility.

CP&L Response

Brunswick Plant currently has no plans to move dry storage casks over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power.

NRC Required Response 4

For licensees planning to perform activities involving the handling of heavy loads over spent fuel, fuel in the reactor core, or safety-related equipment while the reactor is at power (in all modes other than cold shutdown, refueling, and defueled), determine whether changes to Technical Specifications will be required in order to allow the handling of heavy loads (e.g. the dry storage canister shield plug) over fuel assemblies in the spent fuel pool and submit the appropriate information in advance (6-9 months) of the planned movement of the loads for NRC review and approval.

CP&L Response

No changes to Brunswick Plant's Technical Specifications are required. The only applicable limitation for handling heavy loads in Brunswick Plant's Technical Specifications is Technical Specification 3/4.9.7, Crane Travel - Spent Fuel Storage Pool, which limits loads over fuel assemblies in the spent fuel storage racks to a maximum of 1600 pounds. Brunswick has no plans to operate beyond these limits.

ENCLOSURE 2

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
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LIST OF REGULATORY COMMITMENTS

The following table identifies those actions committed to by Carolina Power & Light Company in this document. Any other actions discussed in the submittal represent intended or planned actions by Carolina Power & Light Company. They are described to the NRC for the NRC's information and are not regulatory commitments. Please notify the Manager-Regulatory Affairs at the Brunswick Nuclear Plant of any questions regarding this document or any associated regulatory commitments.

Commitment	Committed date or outage
NONE	N/A