

December 20, 1994

Mr. W. S. Orser  
Executive Vice President  
Nuclear Generation  
Carolina Power & Light Company  
Post Office Box 1551  
Raleigh, North Carolina 27602

SUBJECT: EXEMPTION FROM REQUIREMENTS OF 10 CFR 73.55(d), ACCESS REQUIREMENT -  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2; BRUNSWICK STEAM  
ELECTRIC PLANT, UNITS 1 AND 2; AND SHEARON HARRIS NUCLEAR POWER  
PLANT, UNIT 1. (TAC NOS. M90071, M90072, M90073, M90074)

Dear Mr. Orser:

Enclosed is a copy of an Exemption for your information. This exemption relates to your letter dated July 29, 1994, as supplemented December 5, 1994, requesting an exemption from certain requirements in 10 CFR 73.55(d). The exemption allows an alternative unescorted access control system that would eliminate the need to issue and retrieve badges at each entrance/exit location and would allow all individuals with unescorted access to keep their badge with them when departing the site.

This Exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

(Original Signed By)

Brenda L. Mozafari, Project Manager  
Project Directorate II-1  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-261  
50-325 and 50-324  
50-400

Enclosure: Exemption

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UNITED STATES OF AMERICANUCLEAR REGULATORY COMMISSION

In the matter of	)	
	)	
CAROLINA POWER & LIGHT COMPANY	)	Docket Nos. 50-261
	)	50-325 and 50-324
(H. B. Robinson Steam Electric Plant,	)	50-400
Unit No. 2, Brunswick Steam Electric	)	
Plant, Units 1 and 2; Shearon Harris	)	
Nuclear Power Plant, Unit 1	)	

EXEMPTION

## I.

Carolina Power & Light Company (CP&L or the licensee) is the holder of Facility Operating License Nos. DPR-71 and DPR-62 for Brunswick Steam Electric Plant, Units 1 and 2, (Brunswick) located in Brunswick County, North Carolina; Facility Operating License No. DPR-23 for H. B. Robinson Steam Electric Plant, Unit No. 2, (Robinson) located in Darlington County, South Carolina; and Facility Operating License No. NPF-63 for Shearon Harris Nuclear Power Plant, Unit 1, (Harris) located in Wake and Chatham Counties, North Carolina. The licenses authorize the operation of the above facilities.

The licenses provide, among other things, that the licensee is subject to all rules, regulations and Orders of the Nuclear Regulatory Commission (the Commission or NRC) now or hereafter in effect. The facilities consist of two boiling water reactors located at the licensee's Brunswick site, and two pressurized water reactors, one located at the Robinson site and one at the Harris site.

II.

Paragraph (a) of Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," of Title 10 of the Code of Federal Regulations (10 CFR) states, in part, that "the licensee shall establish and maintain an onsite physical protection system and security organization that will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety."

Paragraph (1) of Section 73.55(d), "Access Requirement," specifies that "The licensee shall control all points of personnel and vehicle access into a protected area." Section 73.55(d)(5) requires that "A numbered picture badge identification system shall be used for all individuals who are authorized access to protected areas without escort." Section 73.55(d)(5) also states that an individual not employed by the licensee (i.e., a contractor) may be authorized access to protected areas without escort provided the individual "receives a picture badge upon entrance into the protected area which must be returned upon exit from the protected area...."

The licensee proposed to implement an alternative unescorted access control system that would eliminate the need to issue and retrieve badges at each entrance/exit location and would allow all individuals with unescorted access to keep their badge with them when departing the site.

An exemption from certain requirements of 10 CFR 73.55(d)(5) is required to allow contractors who have unescorted access to take their badges offsite instead of returning them when exiting the site. By letters dated July 29,

1994, and December 5, 1994, the licensee requested an exemption from certain requirements of 10 CFR 73.55(d)(5) for this purpose.

### III.

Pursuant to 10 CFR 73.5, "Specific exemptions," the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions in this part as it determines are (1) authorized by law and will not endanger life or property or the common defense and security, and (2) are otherwise in the public interest.

Pursuant to 10 CFR 73.55, the Commission may authorize a licensee to provide alternative measures for protection against radiological sabotage provided the licensee demonstrates that the alternative measures have "the same high assurance objective" and meet "the general performance requirements" of the regulation, and "the overall level of system performance provides protection against radiological sabotage equivalent" to that which would be provided by the regulation.

Currently, unescorted access into protected areas of the Harris unit is controlled through the use of a photograph on a badge and a separate keycard. At Brunswick and Robinson, unescorted access into protected areas is controlled through the use of a photograph on a combination badge and keycard (hereafter, referred to as badge). The security officers at each entrance station use the photograph on the badge to visually identify the individual requesting access. The individual is then given the badge to allow access. The badges for both licensee employees and contractor personnel who have been granted unescorted access are issued upon entrance at each entrance/exit location and are returned upon exit. The badges are stored and are retrievable at each entrance/exit location. In accordance with 10 CFR

73.55(d)(5), contractor individuals are not allowed to take badges offsite. In accordance with the plants' physical security plans, neither licensee employees nor contractors are allowed to take badges offsite.

Under the proposed system, each individual who is authorized for unescorted entry into protected areas would have the physical characteristics of his/her hand (hand geometry) registered with his/her badge number in the access control computer. Access is then controlled by the individual requesting access placing his/her badge into the card reader and his/her hand on a measuring surface, the computer then compares the hand geometry to the registered badge number. If the characteristics of the hand geometry stored in the computer match the badge number, access is granted. If the characteristics do not match, access is denied. This provides a nontransferable means of identifying that the individual possessing the badge is the individual who was granted unescorted access. It also provides a positive means of assuring that a stolen or lost badge could not be used to gain access, thus eliminating the need to issue and retrieve the badges while maintaining the same high level of assurance that access is granted to only authorized individuals. All other access processes, including search function capability, would remain the same. The system will not be used for persons requiring escorted access (i.e., visitors). The access process will continue to be under the observation of security personnel located within a hardened cubicle who have final control over the release of the entrance station turnstiles. A numbered picture badge identification system will continue to be used for all individuals who are authorized access to the protected area with escorts. Badges will continue to be displayed by all individuals while inside the protected area.



The licensee will use the hand geometry equipment which will meet the detection probability of 90 percent with a 95 percent confidence level. Testing evaluated by Sandia National Laboratory (Sandia report entitled "A Performance Evaluation of Biometric Identification Devices," SAND91-0276 UC-906 Unlimited Release, Printed June 1991) demonstrated that the proposed hand geometry system is capable of meeting the proposed detection probability and confidence level. Based upon the results of the Sandia report and on its experience with the current photo-identification system, the proposed system will have a false acceptance rate that is at least as low as that of the current system. The Physical Security Plans for the sites will be revised to include implementation and testing of the hand geometry access control system and to allow licensee employees and contractors to take their badges offsite.

#### IV.

For the foregoing reasons, pursuant to 10 CFR 73.55, the NRC staff has determined that the proposed alternative measures for protection against radiological sabotage meet "the same high assurance objective," and "the general performance requirements" of the regulation and that "the overall level of system performance provides protection against radiological sabotage equivalent" to that which would be provided by the regulation.

Accordingly, the Commission has determined that, pursuant to 10 CFR 73.5, an exemption is authorized by law, will not endanger life or property or common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants Carolina Power & Light Company an exemption from those requirements of 10 CFR 73.55(d)(5) relating to the returning of picture badges upon exit from the protected area such that individuals not employed by the licensee, i.e., contractors, who are

authorized unescorted access into the protected area, can take their badges offsite. Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not result in any significant adverse environmental impact (59 FR 65545 ).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Steven A. Varga", is written over the printed name and title.

Steven A. Varga, Director  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 20th day of December 1994