

August 11, 1994

Docket Nos. 50-280, 50-281
50-338, 50-339

Mr. J. P. O'Hanlon
Sr. Vice President - Nuclear
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, Virginia 23060

Dear Mr. O'Hanlon:

SUBJECT: EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 73.55, REQUIREMENTS FOR PHYSICAL PROTECTION OF LICENSED ACTIVITIES IN NUCLEAR POWER REACTORS AGAINST RADIOLOGICAL SABOTAGE - SURRY UNITS 1 AND 2 AND NORTH ANNA UNITS 1 AND 2 (TAC NOS. M89552, M89553, M89813, AND M89814)

The Commission has issued the enclosed exemption from certain requirements of 10 CFR 73.55 relating to issuance, storage and retrieval of badges for contractors who have been granted unescorted access to the protected areas of the site. This exemption is related to your application dated May 27, 1994, to implement a hand geometry biometric system for access control at both the Surry and North Anna sites such that picture badges and access control cards can be taken offsite.

A copy of the exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

(Original Signed By)

(Original Signed By)

Bart C. Buckley, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
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Leon B. Engle, Project Manager
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Enclosure:
Exemption

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DATE	07/13/94	07/13/94	07/13/94	07/18/94	07/21/94	8/1/94

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Mr. J. P. O'Hanlon

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	
VIRGINIA ELECTRIC AND POWER COMPANY)	Docket Nos. 50-280, 50-281
(Surry Power Station Units 1 and 2))	50-338, 50-339
(North Anna Power Station)	
Units 1 and 2))	

EXEMPTION

I

Virginia Electric and Power Company (the licensee) is the holder of Facility Operating License Nos. DPR-32 and DPR-37, which authorize operation of the Surry Power Station Units 1 and 2, and NPF-4 and NPF-7, which authorize operation of the North Anna Power Station Units 1 and 2. The licenses provide, among other things, that the licensee is subject to all rules, regulations, and orders of the Commission now or hereafter in effect.

The facilities consist of two pressurized water reactors at each of the licensee's two sites, Surry Power Station Units 1 and 2, located in Surry County, Virginia, and North Anna Power Station Units 1 and 2, located in Louisa County, Virginia.

II

Title 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," paragraph (a), in part, states that "The licensee shall establish and maintain an onsite physical protection system and security organization which 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."

10 CFR 73.55(d), "Access Requirements," paragraph (1), specifies that "The licensee shall control all points of personnel and vehicle access into a protected area." 10 CFR 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." 10 CFR 73.55(d)(5) also states that an individual not employed by the licensee (i.e., contractors) 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 which 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 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 letter dated May 27, 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 from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the

common defense and security, and 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, employee and contractor identification badges, coupled with their associated access control cards, are issued and retrieved on the occasion of each entry to and exit from the protected areas of the Surry and North Anna sites. Station security personnel are required to maintain control of the badges while the individuals are offsite. This practice has been in effect at the Surry and North Anna Power Stations since each operating license was issued. Security personnel retain each identification badge, as well as the associated access control card, when not in use by the authorized individual, within appropriately designed storage receptacles inside a bullet-resistant enclosure. An individual who meets the access authorization requirements is issued an individual picture identification card and an individual access control card which allows entry into preauthorized areas of the station. While entering the plant in the present configuration, an authorized individual is "screened" by the required detection equipment and by the issuing security officer. Having received the badge, the individual proceeds to the access portal, inserts the access control card into the card reader, enters a personal identification number (PIN), and passes through the

turnstile which unlocks if the preset criteria are met. Once inside the station, the individual's PIN is not required in order to further utilize the access authorization card.

This present procedure is labor intensive since security personnel are required to verify badge issuance, ensure badge retrieval, and maintain the badges in orderly storage until the next entry into the protected area. The regulations permit employees to remove their badges from the site, but an exemption from 10 CFR 73.55(d)(5) is required to permit contractors to take their badges offsite instead of returning them when exiting the site.

Under the proposed system, all individuals authorized to gain unescorted access will have the physical characteristics of their hand (hand geometry) recorded with their badge number. Since the hand geometry is unique to each individual and its application in the entry screening function would preclude unauthorized use of a badge, the requested exemption would allow employees and contractors to keep their badges at the time of exiting the protected area. The process of verifying badge issuance, ensuring badge retrieval, and maintaining badges could be eliminated while the balance of the access procedure would remain intact. Firearm, explosive, and metal detection equipment and provisions for conducting searches will remain as well. The security officer responsible for the last access control function (controlling admission to the protected area) will also remain isolated within a bullet-resistant structure in order to assure his or her ability to respond or to summon assistance.

Use of a hand geometry biometrics system exceeds the present verification methodology's capability to discern an individual's identity.

Unlike the photograph identification badge, hand geometry is nontransferable. During the initial access authorization or registration process, hand measurements are recorded and the template is stored for subsequent use in the identity verification process required for entry into the protected area. Authorized individuals insert their access authorization card into the card reader and the biometrics system records an image of the hand geometry. The unique features of the newly recorded image are then compared to the template previously stored in the database. Access is ultimately granted based on the degree to which the characteristics of the image match those of the "signature" template.

Since both the badge and hand geometry would be necessary for access into the protected area, the proposed system would provide for a positive verification process. Potential loss of a badge by an individual, as a result of taking the badge offsite, would not enable an unauthorized entry into protected areas.

The access process will continue to be under the observation of security personnel. The system of identification badges coupled with their associated access control cards will continue to be used for all individuals who are authorized access to protected areas without escorts. Badges will continue to be displayed by all individuals while inside the protected area. Addition of a hand geometry biometrics system will provide a significant contribution to effective implementation of the security plan at each site.

IV

For the foregoing reasons, pursuant to 10 CFR 73.55, the NRC staff has determined that the proposed alternative measures for protection against

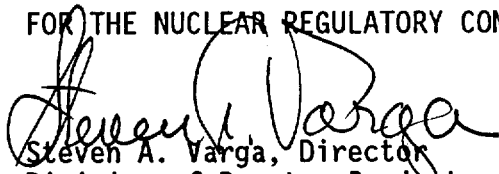
radiological sabotage meet "the same high assurance objective," and "the general performance requirements" of the regulation and that "the overall level of system performance provides protection against radiological sabotage equivalent" to that which would be provided by the regulation.

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 Virginia Electric and Power 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 have no significant impact on the quality of the human environment (59 FR 40927).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION


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

Dated at Rockville, Maryland,
this 11th day of August 1994

IV

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 Virginia Electric and Power 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.

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This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

(Original Signed By)

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

Dated at Rockville, Maryland,
this 11th day of August 1994

OFFICE	LA:PDII-2	PM:PDII-2	PM:PDII-2	AtgD:PDII-2	AD:DRPE
NAME	ETana <i>Mist for</i>	BBuckley <i>Pach</i>	LEngle <i>LGE</i>	VMcCree <i>VM</i>	GLainas <i>GL</i>
DATE	07/13/94	07/13/94	07/13/94	07/18/94	07/11/94

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