Public Service
Electric and Gas
Company

Louis F. Storz
Senior Vice President - Nuclear Operations

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-5700

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U. S. Nuclear Regulatory Commission
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Request for Exemption from 10CFR73.55(d)(5)
Salem Nuclear Generating Station, Units 1 & 2
Hope Creek Generating Station,
Docket Nos. 50-272, 50-311, and 50-354

Gentlemen:

In accordance with the provisions of 10CFR73.5, this letter requests an exemption to the requirements of 10CFR73.55(d)(5) for Salem Nuclear Generating Station Units 1 & 2 and Hope Creek Generating Station Unit 1. The specific requirement for which the exemption is requested states that "an individual not employed by the licensee but who requires frequent and extended access to protected and vital areas may be authorized access to such areas without escort provided that he receives a picture badge upon entrance into the protected area which must be returned upon exit from the protected area...." The requested exemption would allow individuals not employed by Public Service Electric & Gas (PSE&G) to take their badges offsite instead of returning them when exiting the protected area. This would allow all persons granted unescorted access authorization (photo-badged personnel) to maintain personal control of their badges upon leaving the site and ultimately would allow the use of an alternative access control system that would eliminate the issuance and retrieval of badges at the protected area access point.

The alternate access control system being proposed for implementation involves the use of a hand geometry biometrics system to positively identify and control personnel access to the Salem - Hope Creek protected area.

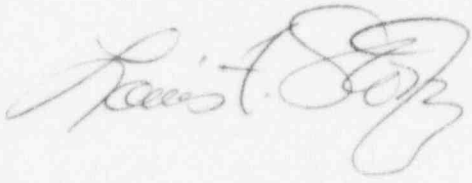
The standards of 10CFR73.5, "Specific Exemptions," are satisfied by this request. The exemption would indirectly benefit the public by enhancing the site access control system.

The system would continue to provide positive identification of persons prior to permitting entry to the protected area. A badge would be inactive for protected area access until identity of the individual is positively established through successful use of the hand geometry reader; therefore, a badge that is inappropriately obtained would be rendered ineffective in allowing protected area access. Please note that in addition to the approval of this exemption request, implementation of the proposed control system will require changes to the existing Security Plan, which will be submitted for NRC approval.

This request is based upon similar exemption requests granted to many other licensees. Annual savings of approximately $250,000 are anticipated through reduction in security force staffing dedicated to the issuance, retrieval, filing, and inventorying of photobadges. We believe this request meets the preliminary attributes of a cost beneficial licensing action. It is therefore requested that the NRC prioritize this request accordingly.

The details associated with this request are included as an attachment to this letter. Should you have any questions or comments on this transmittal, do not hesitate to contact us.

Sincerely,



C Mr. H. J. Miller, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. L. N. Olshan, Licensing Project Manager - Salem
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 14E21
Rockville, MD 20852

Mr. D. Jaffe, Licensing Project Manager - Hope Creek
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Mail Stop 14E21
Rockville, MD 20852

Mr. C. Marschall - Salem
USNRC Senior Resident Inspector (X24)

Mr. R. Summers - Hope Creek
USNRC Senior Resident Inspector (X24)

Mr. K. Tosch, Manager IV
Bureau of Nuclear Engineering
33 Arctic Parkway
CN 415
Trenton, NJ 08625

RAR

BC CNO & President - Nuclear Business Unit (N09)
Senior Vice President - Nuclear Engineering (N19)
Senior Vice President - Nuclear Operations (X04)
General Manager - Salem Operations (S05)
General Manager - Hope Creek Operations (H07)
Director - Nuclear Operations Services (X10)
Director - QA/NSR (X01)
Director - Nuclear Design Engg and Projects (N25)
Director - Nuclear System Engineering (X07)
Manager - Licensing & Regulation (X09)
Manager - Nuclear Safety Review (N38)
Manager - Nuclear Business Relations (N28)
Onsite Safety Review Engineer - Salem (X12)
Onsite Safety Review Engineer - Hope Creek (H11)
Salem Licensing Supervisor (X09)
Hope Creek Licensing Supervisor (X09)
General Solicitor, E. Selover - (Newark, 5G)
Supervisor - OEF Program (X09)
Perry Robinson, Esq.
Records Management (N21)
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File Nos. 1.2.1, 1.2.2, 5.26

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ATTACHMENT
BACKGROUND AND BASIS FOR
EXEMPTION FROM 10CFR73.55(d)(5)

I BACKGROUND

10CFR73.55(d), "Access Requirements," specifies:

(1) "The licensee shall control all points of personnel and vehicle access into a protected area."

(5) "A numbered picture badge identification system shall be used for all individuals who are authorized access to protected areas without escort. An individual not employed by the licensee but who requires frequent and extended access to the protected and vital areas may be authorized access to such areas without escort provided that he receives a picture badge upon entrance into the protected area which must be returned upon exit from the protected area..."

Access to the Salem - Hope Creek protected area for persons granted unescorted access is currently gained by the person requesting a badge, by badge number and name, from a security force member (SFM). The SFM retrieves the person's badge and issues it following the establishment of positive identification through comparison of the person's features to the badge photograph. Badges are not taken offsite, but are returned to the issue point following exit from the protected area.

Under the proposed system, persons granted unescorted access will have the physical characteristics of their hand (hand geometry) measured, quantified, and recorded in association with the person's badge number in the access control system. The badge will not grant access to the protected area without first being activated through the confirmation of identity by the hand geometry reader. Because the badge, by itself, cannot be used to gain access to the protected area, photobadged persons (including contractors) will be permitted to take their badges off-site.

The wording of 10CFR73.55(d)(5), requiring individuals not employed by the licensee to receive and return their badges at the entrance/exit, is intended to ensure that the badges cannot be compromised or stolen by being taken offsite with a resulting risk that unauthorized persons could potentially enter the protected area. Under the proposed system, individuals not employed by the licensee and requiring frequent and extended access would be allowed to take their badges offsite. However, both the badge and the hand geometry would be necessary for access into the protected area. Even if a badge were to be compromised or stolen, access would not be provided without the hand geometry of the person registered to the badge. The proposed system would provide an identity verification process that is equivalent or superior to the current process.

II 10CFR73.5 REQUIREMENTS

10CFR73.5 provides that specific exemptions will be granted which:

Are authorized by law

Will not endanger life or property or the common defense and security

Are otherwise in the public interest

The activities to be conducted under this exemption are authorized by law and are consistent with the common defense and security. The remaining standards of 10CFR73.5 are demonstrated by the following discussion of how the General Performance Objective and Requirements of 10CFR73.55(a) will continue to be met following the granting of the exemption.

10CFR73.55(a) specifies that the Commission may authorize a licensee to provide measures for protection against radiological sabotage other than those required by 10CFR73.55 if the licensee demonstrates that:

The measures have the same high assurance objective as specified in the regulation

The overall level of system performance provides protection against radiological sabotage equivalent to the regulation

Meets the general performance requirement of 10CFR73.55

These acceptance criteria are satisfied as follows:

A. Assurance Objective

American National Standard, ANSI/ANS-3.3-1988, "Security for Nuclear Power Plants," provides for identification of persons authorized unescorted access by use of "... a device that reads fingerprints, hand geometry, or some other unique physical feature." Under the proposed system, each person granted unescorted access will have the physical characteristics of their hand read and linked to their badge by a secure means. Specifically, one means includes the use of a hand geometry subsystem computer, such that positive, non-transferable identification of the person through the hand reader and use of the photobadge in the card reader are required to gain access to the protected area. This system will replace the current visual verification of identity by a member of the security force.

The hand geometry system is superior to the current process in that it is not prone to human error and the identification is non-transferable or able to be forged. The hand of a person authorized unescorted access is measured in three dimensions by a hand geometry reader. A template is created and stored in the computer, for later use in verifying the person's authorization to enter the protected area. Each time the person seeks entry, the system requires the hand to be properly placed on the reader's measuring surface. The system records the hand's image, extracts the unique characteristics and compares them to those in the stored template. Further, the system fails "safe," in that without positive identification, individual access is denied.

Operating as described above, the hand geometry system will provide the same high assurance objectives of positive identification and access control as specified in the regulation. Also, because the badge will be inactivated upon exit from the protected area, it cannot be used by anyone else to gain protected area access. Therefore, the overall level of system performance provides protection against radiological sabotage equivalent to the existing Security Plan, and meets the general performance requirement of 10CFR73.55.

B. System Performance

The hand geometry system selected will meet the detection probability of 90% with a 95% confidence level. This performance is documented in Sandia National Laboratories Report SAND 91-0276 UC - 906, Unlimited Release, June 1991. Numerous licensees have accumulated a system performance history that validates the effectiveness of this system. A maintenance and testing program will be instituted to verify that the high level of detection probability is maintained.

C. General Performance Requirement

The performance requirement of 10CFR73.55(d)(1) is to ensure that the licensee controls all points of personnel access into the protected area. Under the proposed system, PSE&G would continue to enforce all required components of the access control program regulations and commitments. The only changes, as described above, are the use of hand geometry readers for positive identification, inactivation of the badge for gaining access to the protected area upon exit from the protected area, and the elimination of badge issue/retrieval upon protected area entry/exit.

III CONCLUSION

The standards of 10CFR73.5 are satisfied by this exemption request. This exemption, along with approval of a subsequent Security Plan change, will allow implementation of an enhanced access control system that would eliminate the issuance and retrieval of badges at the protected area entrances/exits, and allow persons granted unescorted access to retain their badges when departing the site. The overall level of system performance will continue to provide protection against radiological sabotage equivalent to the existing Security Plan, and meets the general performance requirement of 10CFR73.55.