



Omaha Public Power District
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November 25, 1996
LIC-96-0180

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555

Reference: Docket No. 50-285

SUBJECT: Fort Calhoun Station Unit No. 1 Request For Exemption From 10 CFR
73.55(d)(5)

In accordance with the provisions of 10 CFR 73.5, "Specific exemptions," the Omaha Public Power District (OPPD) requests an exemption from certain requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." This exemption request is submitted for Fort Calhoun Station Unit No. 1 (FCS). Specifically, OPPD requests exemption from the portion of 10 CFR 73.55(d)(5) which states, "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..."

Title 10 CFR 73.55(a) 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." Title 10 CFR 73.55 specifies that the Commission may authorize an applicant or licensee to provide measures for protection against radiological sabotage other than those required by 10 CFR 73.55. This can be accomplished if the applicant or licensee demonstrates that the measures have the same high assurance objective as specified in the regulation, and that the overall level of system performance provides protection against radiological sabotage equivalent to the regulation and meets the general performance requirements of the regulation.

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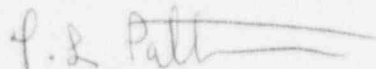
Page 2

This exemption is requested to allow the use of a biometric hand geometry reader system to interface with the existing access control card reader system in controlling unescorted access to the protected area located at FCS. Similar requests from South Carolina Electric and Gas Company, Commonwealth Edison Company, Indiana Michigan Power Company, Entergy Operations, Inc., and Florida Power and Light have been approved by the NRC. After successful implementation of the proposed biometric hand geometry reader system, individual picture badges/keycard for all personnel (OPPD and contractors) may be removed from the protected area. The attachment provides the background and justification for the proposed exemption.

OPPD concludes that the requested exemption is authorized by law and will not endanger life, property or the common defense and security, and is otherwise in the public interest as provided in 10 CFR 73.5. Nothing in this submittal is considered Safeguards Information. The appropriate Site Security Plan changes will be submitted to the NRC under separate cover following approval of this exemption request.

If you should have any additional questions or require additional information, please contact me.

Sincerely,



T. L. Patterson
Division Manager
Nuclear Operations

TLP/mle

Attachment

c: Winston & Strawn
L. J. Callan, NRC Regional Administrator, Region IV
L. R. Wharton, NRC Project Manager
W. C. Walker, NRC Senior Resident Inspector

Omaha Public Power District
Fort Calhoun Station Unit No. 1
10 CFR 73.55(d)(5) Exemption Request

CURRENT SYSTEM

Currently, unescorted access into the protected area at FCS is controlled through the use of a picture badge/keycard (during the remaining discussion, the term "security badge" will be used). The security officers at the entrance to the protected area use the badge number, name, photograph on the security badge and employee self verification to allow individual access. Under the current system, badges are not taken offsite and are issued, stored, and retrieved at the entrance/exit locations.

PROPOSED SYSTEM

Under the proposed system, individuals authorized unescorted access will have the physical characteristics of their hand (hand geometry) registered with the encoded number of their security badge in the access control system. The hand geometry is unique to each individual and its application in the entry screening function would preclude unauthorized use of a security badge. The requested exemption would allow employees and contractors to keep their security badges at the time of exiting the protected area. The processes of verifying prior to issuance, retrieving, and maintaining security badges could be eliminated while the balance of the access procedure would remain intact. Explosive and metal detection equipment and provisions for conducting searches will remain unchanged. Security personnel responsible for the last access control function will also remain isolated within a bullet-resisting structure in order to assure the ability to respond or to summon assistance.

Use of a biometric hand geometry system exceeds the present verification methodology's capability to discern an individual's identity. Unlike the security badge, hand geometry is nontransferable. During the initial access authorization or registration process, hand measurements are registered and the template is stored for subsequent use in the identity verification process required for entry into the protected area. For access, an authorized individual inserts his or her security badge into the card reader and the biometrics hand geometry system records an image of the individual's 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 template.

BASIS FOR EXEMPTION

OPPD requests, in accordance with the provisions of 10 CFR 73.5, "Specific exemptions," an exemption from certain requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage" for FCS.

Currently, positive identification of personnel authorized and requesting access to the protected area is established by security personnel. Personnel authorized unescorted access to the protected area request their security badge by security badge number. Security personnel verify identity by making a visual comparison of the security badge picture and the individual requesting access. The individual then verifies that the retrieved badge is his/hers. Under the current system, security badges are not taken offsite and are issued, stored and retrieved at the entrance/exit locations. OPPD proposes to use a biometric hand geometry system, in conjunction with the existing card reader system, to control unescorted access into the protected area at FCS. This system would eliminate the need to issue and retrieve badges at each entrance/exit location, and would allow individuals to keep their security badges with them when departing the site.

In order to implement this system, an exemption is needed from the part of 10 CFR 73.55 (d)(5) which 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 security badge upon entrance in the protected area which must be returned upon exit from the protected area..."

Title 10 CFR 73.5 states that, "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." Additionally, 10 CFR 73.55(a) specifies that the Commission may authorize an application or licensee to provide measures for protection against radiological sabotage other than those required by 10 CFR 73.55. This can be accomplished if the applicant or licensee demonstrates that the measures have the same high assurance objective as specified in the regulation, and that the overall level of system performance provides protection against radiological sabotage equivalent to the regulation and meets the general performance requirements of 10 CFR 73.55.

ASSURANCE OBJECTIVE

The proposed hand geometry system will interface with the existing card readers, and all personnel authorized unescorted access to the facility will be allowed to remove their security badges from the protected area. The system will also include a disabling feature for security badges logged out of the protected area, as well as a feature to deny protected area access to security badges already enrolled in the protected area. Appropriate compensatory measures will be implemented during system failure to provide a degree of access control equivalent to that provided by the enhanced security badge/biometric hand geometry system.

The biometric hand geometry system will provide the same high assurance objective regarding onsite physical protection, and is not inimical to the common defense and security and does not constitute an unreasonable risk to the public health and safety.

SYSTEM PERFORMANCE

OPPD proposes that the hand geometry equipment selected will meet detection probability of 90% with a 95% confidence level. Testing conducted by Sandia National Laboratories (Sandia Report, "A Performance Evaluation of Biometric Identification Devices," SAND91-0276 UC-906 Unlimited Release, Printed June 1991) demonstrated that the hand geometry equipment possesses strong performance characteristics and is capable of meeting the proposed detection probability and confidence level. OPPD will have a process for testing the system. The Site Security Plan will be revised accordingly to include testing of the biometric hand geometry access control system.

Implementation of the biometric hand geometry access control system will continue to provide the overall level of performance equivalent to that which is called for in 10 CFR 73.55.

GENERAL PERFORMANCE REQUIREMENTS

The performance requirements of 10 CFR 73.55(d)(1) is to ensure that the licensee controls all points of personnel access into the protected area. Under the proposed system, OPPD will continue to control all points of personnel access into the protected area. OPPD believes that the basis for the wording of 10 CFR 73.55(d)(5), regarding individuals not employed by the licensee having to receive and turn in their security badges at the entrance/exit, was to ensure that security badges could not be compromised or stolen by being taken offsite, and

GENERAL PERFORMANCE REQUIREMENTS (Continued)

as a result, 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 security badge offsite; however, both the security badge and hand geometry would be necessary for access into the protected area. If a security badge were to be compromised or stolen, access would not be permitted without the hand geometry of the person registered to the security badge. OPPD maintains that the proposed system would continue to provide for a combination of identity verification processes.

The access process will continue to be under the observation of security personnel who have final control over the protected area entrance turnstiles. The security badge system will continue to be used for all individuals who are authorized access to the protected area without escort. Security badges will continue to be displayed by all individuals inside the protected area in accordance with the Site Security Plan.

Implementation of the biometric hand geometry access control system will continue to meet the general performance requirements of 10 CFR 73.55(d)(5) except for the referenced exemption request.

PROPOSED PLAN CHANGE

Contingent upon the approval of this exemption request, a Site Security Plan revision will be submitted at the time of implementation under the provisions of 10 CFR 50.54(p)(2).