

Indian Point 3
Nuclear Power Plant
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L. M. Hill
Site Executive Officer

October 13, 1995
IPN-95-102

Mr. William T. Russell
Director, Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

SUBJECT: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
License No. DPR-64
**Request for Exemption from 10 CFR 73.55 (d)(5);
Requirements for Physical Protection Against
Radiological Sabotage, Access Requirements**

Dear Sir:

Pursuant to Title 10 CFR 73.5, "Specific Exemptions," the New York Power Authority (NYPA) requests an exemption from the requirements of 10 CFR 73.55(d)(5), "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage, Access Requirements," for Indian Point 3. The exemption will permit the implementation of an alternative unescorted access control system which would eliminate the need to issue and retrieve badges at the protected area entrance/exit locations, and would allow all individuals, including licensee employees and contractors with unescorted access to keep their badges with them when departing the site. The alternative NYPA proposes to use is a hand geometry biometrics system to control unescorted access 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 individuals not employed by NYPA (e.g., contractors, NRC employees) to take their badges offsite instead of returning them when exiting the protected area.

New York Power Authority has based this exemption request on similar requests granted throughout the industry. NYPA estimates that implementation of the biometrics access control system will provide an annual savings of approximately \$161,000 due to the reduction of the staff required to issue and retrieve picture badges. NYPA believes that this request satisfies the criteria of 10 CFR 73.5 as described in Attachment 2 and meets the attributes and therefore qualifies as a cost beneficial licensing action. NYPA plans to implement the biometrics access control system in the near future. Therefore, NYPA requests that the NRC prioritize this submittal accordingly, in order to facilitate implementation of the system. Upon approval of the exemption, the Indian Point 3 Physical Security Plan will be updated in accordance with 10 CFR 50.54(p).

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Attachment 1 lists NYPA's commitments being made by this submittal. If you have any questions, please contact Mr. K. Peters.

Very truly yours,



E. M. Hill
Site Executive Officer
Indian Point 3 Nuclear Power Plant

Attachment: Evaluation pursuant to 10 CFR 73.5 Criteria.

cc: Mr. Thomas T. Martin
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U. S. Nuclear Regulatory Commission
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LIST OF COMMITMENTS

Number	Commitment	Due
IPN-95-102-01	Revise the Physical Security Plan to allow licensee employees and contractors to take their badges offsite.	After NRC approval of the exemption request and prior to system implementation.
IPN-95-102-02	Implement a process for testing the proposed system to ensure continued overall level of performance.	After NRC approval of the exemption request and prior to system implementation.

Evaluation Pursuant to 10 CFR 73.5 Criteria

EXECUTIVE SUMMARY

The Code of Federal Regulations at 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." In addition, the regulation states in part that an individual not employed by the licensee (e.g., contractors) may be authorized access to protected areas without escort provided the individual receives a picture badge upon entrance into the protected areas which must be returned upon exit from the protected area.

New York Power Authority proposes to use a hand geometry biometrics system to control unescorted access into the protected area and believes the criteria of Title 10 CFR 73.5, "Specific Exemptions," are satisfied in this request. The exemption will result in benefits to the public from the enhanced site access control systems. Since the new access control system would require the use of both the badge and a hand geometry system to grant access into the protected area, the proposed system would continue to 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 the protected area.

Evaluation Pursuant to 10 CFR 73.5 Criteria

BACKGROUND

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."

10 CFR 73.55(d), "Access Requirements", specifies that,

- (1) "Licenses shall control all points of personnel and vehicle access in to 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 in the protected area which must be returned upon exit from the protected area..."

Currently, unescorted access at Indian Point 3 is controlled through the use of a picture badge. Positive identification of personnel authorized and requesting access to the protected area is established by security personnel making a visual comparison of a picture badge and the individual requesting access. Badges are not taken offsite and are issued, stored, and retrieved at the entrance/exit location.

Under the proposed system, each individual who is authorized unescorted access will have the physical characteristics of his/her hand (hand geometry) registered with their picture badge number in the access control system. Since no one can use a picture badge to gain access except the individual whose hand geometry has been registered to that badge, individuals (including contractors) will be allowed to keep their badge with them when they depart the site. All other access processes, including the search function and access revocation, will remain the same. Since badges will be taken offsite, only the need to issue, retrieve and store badges at the entrance stations to the plant will be eliminated. A security officer responsible for access control will continue to be positioned within a bullet-resisting structure. This system would not be used for persons requiring escorted access (i.e., visitors).

Evaluation Pursuant to 10 CFR 73.5 Criteria

The basis for the wording in 10 CFR 73.55(d)(5), which requires individuals not employed by the licensee to receive and return their badges at the entrance/exit, was to ensure that the badges could not 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. Access authorization is assured because 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. NYPA maintains that the proposed system would continue to provide for a combination of identification verification processes that are at least equal to the existing process.

JUSTIFICATION FOR EXEMPTION

The standard set forth in 10 CFR 73.5 states that the Nuclear Regulatory Commission may, upon application of any interested person, grant specific exemptions from the requirements of the regulations contained in 10 CFR Part 73 provided that:

- The exemption is authorized by law
- The exemption will not endanger life or property or the common defense and security, and
- The exemption is otherwise in the public interest.

The exemption request satisfies the 10 CFR 73.5 criteria as stated below;

I. The Requested Exemption is Authorized by Law

The Nuclear Regulatory Commission is authorized by law to grant this exemption, as evidenced by the granting of similar exemptions to Baltimore Gas and Electric Company for Calvert Cliffs Nuclear Power Plant, the Florida Power & Light Company Turkey Point Nuclear Power Plants, as well as other licensees.

Evaluation Pursuant to 10 CFR 73.5 Criteria

II. The Requested Exemption Will Not Endanger Life Or Property Or The Common Defense And Security

Life or property will not be endangered and activities to be conducted under this exemption are consistent with the common defense and security. The proposed hand geometry biometrics system for control of unescorted access to the protected area would continue to require use of badges and be under control of a security officer within a bullet resisting structure.

III. The Requested Exemption Is Otherwise In the Public Interest

Title 10 CFR Part 73.55(a) specifies that the Commission may authorize an applicant or licensee to provide measures for protection for radiological sabotage other than those required by 10 CFR 73.55. Protection for radiological sabotage can be accomplished if the applicant or licensee demonstrates that:

- the measures have the same high assurance objective as specified in the regulation;
- 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.

These standards are satisfied as described below.

ASSURANCE OBJECTIVE

As discussed in American National Standard, ANSI/ANS-3.3-1988, "Security for Nuclear Power Plants," Section 5.4.5.2, identification of individuals authorized access without escort shall be accomplished by personal recognition by comparison of the individual to the likeness portrayed on a company provided tamper-resistant photo-identification card or badge. A device that reads fingerprints, handgeometry, or some other unique physical feature may be used.

Evaluation Pursuant to 10 CFR 73.5 Criteria

Under the proposed system, each individual who is authorized unescorted access will have the physical characteristics of his/her hand registered with his/her badge. Visual verification of a picture badge will be replaced with a hand geometry system which provide for a non-transferrable means of identifying people, coupled with the use of a badge reader. The current Indian Point 3 access control process for identifying individuals meets ANSI/ANS-3.3 criteria. The proposed hand geometry access control process, as well, meets the ANSI/ANS-3.3 identification criteria.

The hand geometry system is superior to the current process because it provides a non-transferrable means of identifying people, unlike photographs on a badge. During the registration process, hand measurements are made. This forms a template of the user's hand which is stored for later use in the actual verification process. A registered user places the hand on the measuring surface. The system detects when the hand is properly positioned and then records an image. The unique characteristics are extracted from this image and then compared with the previously stored template. The user then enters his/her badge into the cardreader for authorized entry.

Therefore, the biometric access control system will provide the same high assurance objective regarding onsite physical protection.

SYSTEM PERFORMANCE

New York Power Authority proposes that the hand geometry equipment selected will meet the detection probability of 90% with 95% confidence level. Testing conducted by Sandia National Laboratories (Sandia Report, "A Performance Evaluation of Biometric Identification Devices," SAND91-0276 UC-906 Unlimited Release, June 1991) demonstrated that the hand geometry equipment possesses strong performance characteristics and is capable of meeting the proposed detection probability and confidence level. Based on the results of the Sandia report and on experience gained at Indian Point 3 under the current photo-identification system, the false acceptance rate for the hand geometry system is at least equal to the current system. The Physical Security Plan will be revised to allow licensee employees and contractors to take their badges offsite. New York Power Authority will implement a process for testing the proposed system to ensure continued overall level of performance.

Evaluation Pursuant to 10 CFR 73.5 Criteria

GENERAL PERFORMANCE REQUIREMENT

The performance requirement of 10 CFR 73.55(d)(1) is to ensure that the licensee controls all points of personnel access into a protected area. Under the proposed system, Indian Point 3 will continue to control all points of personnel access into the protected area. The required access processes, including the search function capability and access revocation, will remain the same. The processes required to issue, retrieve, and store badges at the protected area entrances/exits will be eliminated. Badges will continue to be displayed by all individuals while inside the protected area.

Implementation of the biometric access control system will continue to meet the general performance requirements of 10 CFR 73.55(d)(5).

SCHEDULE

The biometric access control system is currently scheduled to be operational in the near future. New York Power Authority requests that the NRC prioritize this submittal accordingly, in order to facilitate implementation.

CONCLUSION

New York Power Authority concludes the exemption request is warranted under the provisions of 10 CFR 73.5, in that it does not endanger life or property or common defense and security, and is otherwise in the public interest. The proposed system provides an identity verification process that is equivalent to the existing process. Therefore, the exemption to allow individuals not employed by NYPA to take their picture badges offsite will not result in an increase in the risk that an unauthorized individual could potentially enter the protected area. This exemption is necessary to permit implementation of an enhanced unescorted access control system which would eliminate the need to issue and retrieve badges at protected area entrances/exits and allow all individuals with unescorted access to keep their badges with them when departing the site.