

PECO ENERGY

PECO Energy Company
Nuclear Group Headquarters
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

September 8, 1994

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56

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

Subject: Peach Bottom Atomic Power Station, Units 2 and 3
Request for Exemption from 10CFR73.55
Use of Biometrics Access Control System

Dear Mr. Russell:

This letter is submitted in accordance with the provisions of 10CFR73.5, "Specific Exemptions," to request an exemption from certain requirements stipulated in 10CFR73.55, "Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage," regarding the use of photograph identification (ID) badges at Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. PECO Energy Company (PECO Energy) currently utilizes numbered picture ID badges for monitoring/controlling unescorted personnel access to protected and vital areas at PBAPS. PECO Energy is in the process of implementing a hand geometry biometric access control system at PBAPS, Units 2 and 3, such that photograph ID badges can be taken offsite. Therefore, we are requesting an exemption from the requirements of 10CFR73.55(d)(5) which stipulates the use of a numbered picture badge identification system for individuals who are authorized access to protected areas without escort. We are requesting that the NRC grant this exemption by December 16, 1994, in order to facilitate implementation of the biometrics access control system.

100005

9409200050 940908
PDR ADDCK 05000277
P PDR

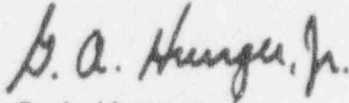
5003
11

September 8, 1994

Page 2

If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,



G. A. Hunger, Jr.
Director - Licensing

Attachment

JLP/eas

| | | |
|-----|---|--------------|
| cc: | T. T. Martin, Administrator, Region I, USNRC | w/attachment |
| | W. L. Schmidt, USNRC Senior Resident Inspector, PBAPS | " |
| | R. R. Janati, Commonwealth of Pennsylvania | " |
| | Document Control Desk, USNRC | " |

REQUEST FOR EXEMPTION - BIOMETRIC ACCESS CONTROL

Introduction

PECO Energy Company is requesting an exemption, in accordance with the provisions of 10CFR73.5, "Specific Exemptions," from certain requirements of 10CFR73.55, "Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors Against Radiological Sabotage," regarding the use of photograph identification (ID) badges at Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. Specifically, we are requesting an exemption from the requirements of 10CFR73.55(d)(5) which stipulates that individuals who require access to protected and vital areas be authorized access to such areas without escort, provided that he/she receives a picture ID badge upon entrance into the protected area which must then be returned upon exit from the protected area.

10CFR73.55 states that each licensee shall establish and maintain an on-site 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. 10CFR73.55 specifies that the NRC may authorize an applicant or licensee to provide measures for protection for radiological sabotage other than those required by 10CFR73.55. 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.

We are requesting this exemption to allow photograph ID badges to be taken offsite in conjunction with the use of a hand geometry biometrics access control system for controlling unescorted access into the protected areas at PBAPS.

Existing Circumstances

Currently, unescorted access at PBAPS is controlled through the use of a photograph ID badge keycard (during the remaining discussion, the term "badge" will be used to mean the combination of a picture badge and keycard). The security force members at the protected area entrance guard station at PBAPS use the photograph on the badge to identify the individual requesting access. Under the current system, badges are not taken offsite and are issued, stored, and retrieved at the entrance/exit guard station.

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 10CFR73.55(d)(5) is required to permit contractors to take their badges offsite instead of returning them when exiting the site.

Proposed Access System

We are in the process of implementing a hand geometry biometrics access control system for use at PBAPS. With this proposed system, each individual who is authorized unescorted access will have the physical characteristics of their hand (hand geometry) registered with their badge number in the access control system. Since no one can use a badge to gain access except the individual whose hand geometry has been registered to that badge, individuals will be allowed to keep their badge with them when they leave the site. This proposed access control system will also be utilized for individuals not employed by PECO Energy (e.g., contractors). All other access processes, including search function capability, will be unchanged except for eliminating the process of issuing, retrieving, and storing badges at the protected area entrance/exit guard station at PBAPS. At least one security force member will continue to be positioned within a bullet-resisting structure at the guard station to be responsible for the last act of access control.

The hand geometry biometrics access control system provides a non-transferable means of identifying individuals, unlike the current process, which uses numbered photograph ID badges for controlling access to protected areas at the plant. During the registration process, hand measurements are taken three times on each hand with the results being averaged. This forms a template of the user's hand which is stored for later use in the actual verification process. A registered user enters his/her badge into the card reader and places their hand on the measuring surface. The system detects when the hand is properly positioned and then takes a picture. The unique characteristics are extracted from this picture and then compared with the previously stored template.

The performance of the hand geometry biometrics system has been evaluated by Sandia National Laboratories as documented in a Sandia National Laboratory report (i.e., Sand 91-0276 UC-906 Unlimited Release, "A Performance Evaluation of Biometrics Identification Devices," dated June 1991). Based on the information contained in this report, and on experience gained at PBAPS under the current photograph ID identification system, the false-accept rate for the hand geometry system is comparable to that of the current system.

In addition, we will develop a process for testing the system to ensure that the sensitivity of the system is maintained at an appropriate level. As previously stated, all other access control processes will remain unchanged except for the processing of photograph ID badges at the entrance/exit guard station to the plant. It should also be noted that the proposed system is only for individuals with authorized unescorted access and will not be used for those individuals requiring escorts. The site security plan will also be revised to allow implementation of the hand geometry system and to allow employees and contractors with unescorted access to keep their ID badges in their possession when leaving the PBAPS site.

Basis for Exemption

The basis for this exemption request is that it is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security.

This exemption request presents a special circumstance, in that application of the regulation in this particular circumstance would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of 10CFR73.55(d) is to control all points of personnel access into a protected area. The bases for the wording in 10CFR73.55(d)(5) was to ensure that the badges could not be compromised or stolen by being taken offsite. With the proposed biometrics access control system, badges would be taken offsite. However, both the badge and hand geometry would be necessary for access into the protected area. Even if a badge could be compromised or stolen, access would not be permitted without the associated hand geometry of the person registered to the badge. The proposed system would continue to provide a combination of identity verification processes and, in fact, would increase the level of access control at PBAPS.

Therefore, imposing this regulation, under this particular circumstance, is not necessary to achieve the underlying purpose of the rule. The overall level of system performance will ensure adequate protection against radiological sabotage equivalent to that imposed by the rule.