Florida
Power
CORPORATION
Crystal River Unit 3
Docket No. 50-302

June 22, 1995
3F0695-06

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Request for Exemption from 10 CFR 73.55(d)(5), Use of Hand Geometry Devices (Biometrics)

Dear Sir:

In this submittal, Florida Power Corporation (FPC) 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" for Crystal River 3 (CR-3). This 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. The exemption will indirectly result in benefits to the public from enhanced site access control. FPC believes the standards of 10 CFR 73.5, Specific Exemptions, are satisfied. The Physical Security Plan will be revised to allow licensee employees and contractors to take their badges offsite.

The annual savings from full implementation of this system are expected to exceed $150,000; therefore we request this action be prioritized as a Cost Beneficial Licensing Action. The biometric access control system is currently scheduled to be operational by December 15, 1995. We request that this exemption be granted prior to that date.

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Should you have any further questions regarding this matter, we will be pleased to discuss them with you.

Sincerely,

P. M. Beard, Jr.
Senior Vice President
Nuclear Operations

Attachment

PMB:AEF

xc: Regional Administrator, Region II
Senior Resident Inspector
NRR Project Manager

REQUEST FOR EXEMPTION
10 CFR 73.55(d)(5)
FOR CRYSTAL RIVER 3

ATTACHMENT TO 3F0695-06

INTRODUCTION

Pursuant to 10 CFR 73.5, Florida Power Corporation (FPC) 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" for Crystal River 3 (CR-3). Section 73.55(d)(5) states, in part, 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 ..." As detailed below, this 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. 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 protected area.

FPC proposes to use a hand geometry system (biometrics) to control unescorted access into the CR-3 protected area and believes the standards of 10 CFR 73.5, Specific Exemptions, are satisfied in this request. The exemption will indirectly result in benefits to the public from enhanced site access control. 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.

FPC has based this exemption request on similar requests granted to other licensees (e.g., Florida Power and Light Company, Baltimore Gas and Electric Company, and others). Since we estimate an annual savings of over $150,000 due to reducing the staff required to issue and retrieve picture badges, we believe that this request meets the preliminary attributes of a cost beneficial licensing action. Therefore, we request that the NRC prioritize this submittal accordingly.

BACKGROUND

10 CFR 73.55(a) "General performance objective and requirements," 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," further specifies that,

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

as well as

"(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..."

Currently, unescorted access into CR-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 their 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 search function capability 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 may also be used for persons requiring escorted access (i.e., visitors). Use of the hand geometry system by personnel who require escorted access will be electronically linked to the assigned escort at the entrance to the protected area to ensure unauthorized access to the protected area is not permitted.

We understand that the basis for the wording in 10 CFR 73.55(d)(5), requiring 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. It should be noted that 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. In addition, badges are deactivated upon exiting the protected area and cannot be used for vital area access until reactivated by a valid hand geometry match at the protected area entrance. We maintain that the proposed system would provide for a combination of identity verification processes that are superior to the existing process.

THE REQUIREMENTS OF 10 CFR 73.5 ARE MET

The standards set forth in 10 CFR 73.5 provide that specific exemptions will be granted which: are authorized by law; will not endanger life or property or the common defense and security; and, are otherwise in the public interest.

FPC believes that the activities to be conducted under this exemption are clearly authorized by law and are consistent with the common defense and security. We believe the remaining standards of 10 CFR 73.5 are demonstrated by the following discussion of how FPC will continue to meet the General Performance Objective and Requirements of 10 CFR 73.55(a) when the exemption is granted.

Title 10 CFR 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. This 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, "Security for Nuclear Power Plants," identification of individuals authorized access without escort can be accomplished by the use of "... a device that reads fingerprints, handprints, or some other unique physical feature." Under the proposed system, each individual who is authorized unescorted access will have the physical characteristics of their hand registered with their badge. Visual verification of a picture badge will be replaced with a hand geometry system which provides for a non-transferrable means of identifying people, coupled with the use of a badge reader. The current FPC 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 enters his/her badge into the card reader and 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.

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

System Performance

The hand geometry equipment selected will meet a 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, 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 CR-3 under the current photo-identification system, the false-accept rate for the hand geometry system is at least equal to the current system. FPC will implement a process for testing the proposed system to ensure continued overall level of performance. The hand geometry system will be tested on the same frequency as the seven day test schedule for intrusion detection equipment required by 10 CFR 73.55(g)(2).

Failures of the hand geometry/card access system will be compensated for by the posting of security personnel to verify identity and access authorization prior to granting access to the protected area.

Each hand geometry unit enclosure is protected by a lock and tamper switch. Data cabling is enclosed in conduit and contained within the Nuclear Security Operations Center, which is continuously manned.

Lost badges will be electronically removed from the access control system, thus preventing unauthorized use.

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, FPC will continue to control the point of personnel access into the protected area. All required access processes, including search function capability and access revocation, will remain the same. The processes required to issue, retrieve, and store badges at the protected area entrance and exit 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).