August 31, 1994

Docket Nos. STN 50-528, STN 50-529,
and STN 50-530

Mr. William L. Stewart
Executive Vice President, Nuclear
Arizona Public Service Company
Post Office Box 53999
Phoenix, Arizona 85072-3999

Dear Mr. Stewart:

SUBJECT: EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR 73.55: REQUIREMENTS FOR PHYSICAL PROTECTION OF LICENSED ACTIVITIES IN NUCLEAR POWER PLANT REACTORS AGAINST RADIOLOGICAL SABOTAGE - PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 (TAC NOS. M89510, M89511, AND M889512)

The Commission is granting the enclosed exemption regarding a requirement in 10 CFR 73.55 relating to issuance, storage, and retrieval of badges for contractors who have been granted unescorted access to the protected areas of the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde). This exemption is related to your application dated April 29, 1994, to allow implementation of a hand geometry biometric system to control site access into the protected area of Palo Verde so that photograph identification badges can be taken offsite.

We find that granting the exemption is authorized by law, will not present an undue risk to public health and safety, is consistent with the common defense and security, and meets the special circumstances described in 10 CFR 73.5.

The exemption is being forward to the Office of the Federal Register for publication.

Sincerely,

Linh N. Tran, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Enclosure:
Exemption

cc w/enclosure:
See next page

* See previous concurrence

OFC	LA:DRPW	PM:PD4-2	PM:PD4-2	NRR:PSGB	OGC	D:PD4-2	ADR	D:DRPW
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DISTRIBUTION: Letter to Arizona Public Service Company dated August 31, 1994
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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
ARIZONA PUBLIC SERVICE COMPANY, ET. AL.	)	Docket Nos. STN 50-528, STN 50-529,
Palo Verde Nuclear Generating Station, Units Nos. 1, 2, and 3)	)	and STN 50-530

EXEMPTION

I.

Arizona Public Service Company (the licensee) is the holder of Facility Operating License Nos. NPF-41, NPF-51, and NPF-74, which authorizes operation of the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Palo Verde), respectively. The license provides, among other things, that it is subject to all rules, regulations, and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect. The Palo Verde facilities consist of three pressurized reactors located in Maricopa County, 50 miles west of Phoenix, Arizona.

II.

Paragraph (a) of Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," of Title 10 of the *Code of Federal Regulations* (CFR) states, in part, 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."

Paragraph (1) of Section 73.55(d), "Access Requirement," specifies that "The licensee shall control all points of personnel and vehicle access into a protected area." Section 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." Section 73.55(d)(5) also states 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...."

The licensee proposed to implement an alternative unescorted access control system which would eliminate the need to issue and retrieve badges at each entrance/exit location and would allow all individuals with unescorted access to keep their badge with them when departing the site.

An exemption from 10 CFR 73.55(d)(5) is required to allow contractors who have unescorted access to take their badges offsite instead of returning them when exiting the site. By letter dated April 29, 1994, the licensee requested an exemption from certain requirements of 10 CFR 73.55(d)(5) for this purpose.

III.

Pursuant to 10 CFR 73.5, "Specific exemptions," the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions in this part as it determines are (1) authorized by law and will not endanger life or property or the common defense and security, and (2) are otherwise in the public interest.

Pursuant to 10 CFR 73.55, the Commission may authorize a licensee to provide alternative measures for protection against radiological sabotage provided the licensee demonstrates that the alternative measures have "the same high assurance objective" and meet "the general performance requirements" of the regulation, and "the overall level of system performance provides protection against radiological sabotage equivalent" to that which would be provided by the regulation.

Currently, unescorted access into protected areas of the Palo Verde units is controlled through the use of a photograph on a badge/keycard (hereafter, referred to as badge). The security officers at each entrance station use the photograph on the badge to visually identify the individual requesting access. The individual is then given the badge to allow access. The badges for both licensee employees and contractor personnel who have been granted unescorted access are issued upon entrance at each entrance/exit location and are returned upon exit. The badges are stored and are retrievable at each entrance/exit location. In accordance with 10 CFR 73.55(d)(5), contractor individuals are not allowed to take badges offsite. In accordance with the plants' physical security plans, neither licensee employees nor contractors are allowed to take badges offsite.

Under the proposed system, each individual who is authorized for unescorted entry into protected areas would have the physical characteristics of his/her hand (hand geometry) registered with his/her badge number in the access control computer. Access is then controlled by the individual requesting access placing his/her badge into the card reader and his/her hand on a measuring surface, the computer then compares the hand geometry to the registered badge number. If the characteristics of

the hand geometry stored in the computer match the badge number, access is granted. If the characteristics do not match, access is denied. This provides a nontransferable means of identifying that the individual possessing the badge is the individual who was granted unescorted access. It also provides a positive means of assuring that a stolen or lost badge could not be used to gain access, thus eliminating the need to issue and retrieve the badges while maintaining the same high level of assurance that access is granted to only authorized individuals. All other access processes, including search function capability, would remain the same. The system will not be used for persons requiring escorted access (i.e., visitors). The access process will continue to be under the observation of security personnel located within a hardened cubicle who have final control over the release of the entrance station turnstiles. A numbered picture badge identification system will continue to be used for all individuals who are authorized access to the protected area with escorts. Badges will continue to be displayed by all individuals while inside the protected area.

The licensee will use the hand geometry equipment which will meet the detection probability of 90 percent with a 95 percent confidence level. Testing evaluated by Sandia National Laboratory (Sandia report entitled "A Performance Evaluation of Biometric Identification Devices," SAND91-0276 UC-906 Unlimited Release, Printed June 1991), demonstrated that the proposed hand geometry system is capable of meeting the proposed detection probability and confidence level. Based upon the results of the Sandia report and on its experience with the current photo-identification system, the proposed system will have a false acceptance rate less than the current

system. The Physical Security Plans for the site will be revised to include implementation and testing of the hand geometry access control system and to allow licensee employees and contractors to take their badges offsite.

IV.

For the foregoing reasons, pursuant to 10 CFR 73.55, the NRC staff has determined that the proposed alternative measures for protection against radiological sabotage meet "the same high assurance objective," and "the general performance requirements" of the regulation and that "the overall level of system performance provides protection against radiological sabotage equivalent" to that which would be provided by the regulation.

Accordingly, the Commission has determined that, pursuant to 10 CFR 73.5, an exemption is authorized by law, will not endanger life or property or common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants Arizona Public Service Company an exemption from those requirements of 10 CFR 73.55(d)(5) relating to the returning of picture badges upon exit from the protected area such that individuals not employed by the licensee, i.e., contractors, who are authorized unescorted access into the protected area, can take their badges offsite.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will not result in any significant adverse environmental impact (59 FR 41519).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Jack W. Roe, Director
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland
this 31st day of August 1994