

January 3, 1995

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

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT - PROPOSED
NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION, OPPORTUNITY FOR
HEARING - PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3
(TAC NOS. M90904, M90905, AND M90906)

Dear Mr. Stewart:

The Commission has requested the Office of the Federal Register to publish the enclosed "Notice of Consideration of Issuance of Amendment, Proposed No Significant Hazards Consideration Determination, and Opportunity for Hearing." This notice relates to your application for amendments dated October 31, 1994, as supplemented by letter dated December 28, 1994. The proposed amendments would change the refueling machine overload cutoff limit from less than or equal to 1556 pounds to less than or equal to 1600 pounds.

Sincerely,

ORIGINAL SIGNED BY:

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

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

Enclosure: Notice

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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Mr. William L. Stewart
Executive Vice President, Nuclear
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Sincerely,

A handwritten signature in black ink, appearing to read "Linh N. Tran".

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

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

Enclosure: Notice

cc w/encl: See next page

Mr. William L. Stewart
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Palo Verde

cc:

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UNITED STATES NUCLEAR REGULATORY COMMISSION
ARIZONA PUBLIC SERVICE COMPANY
PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3
DOCKET NOS. STN 50-528, STN 50-529, AND STN 50-530
NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSES, PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendments to Facility Operating License Nos. NPF-41, NPF-51, and NPF-74 issued to Arizona Public Service Company for operation of the Palo Verde Nuclear Generating Station, Units 1, 2, and 3, located in Maricopa County, Arizona.

The proposed amendments would change the refueling machine overload cutoff limit from less than or equal to 1556 pounds to less than or equal to 1600 pounds. The change is a consequence of the fuel assembly weight increase which resulted from design and fabrication improvements.

Before issuance of the proposed license amendments, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendments would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of

accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

Standard 1 -- Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

The proposed Technical Specification amendment to Sections 3.9.6 and 4.9.6.1 provides a revised refueling machine hoist overload cut off limit that is appropriate for the increased weight of the fuel assemblies. The increased weight of fuel assemblies results from design and fabrication improvements such as denser fuel pellets, laser welded GUARDIAN™ grids, and laser welded spacer grids. The weight of a fuel assembly is identified in the UFSAR as a parameter in the analysis for a Fuel Handling Accident. The radiological consequences of a Fuel Handling Accident were re-evaluated in order to incorporate fuel assembly design changes including increases in the fuel assembly weight and increases of the maximum fuel enrichment. The analysis used a fuel assembly enriched to 4.3 weight percent and the power assigned to the assembly was 1.65 times the average power per assembly. The accident is assumed to occur 100 hours after reactor shutdown and it is also assumed that all 236 fuel rods fail. The resultant thyroid dose at the 2 hour exclusion area boundary is 71.5 rem which meets the Standard Review Plan 15.7.4 limit of 75 rem. The conclusions for the radiological consequences of a Fuel Handling Accident remain consistent with the results in the Safety Evaluation Report. The increased weight of the fuel assemblies was reviewed, separate from this proposal, in accordance with the provisions of 10 CFR 50.59 and found to be acceptable, as described above.

The increase in the refueling machine overload cut off limit does not impact the manner in which the refueling machine is operated or the manner in which the fuel assemblies are engaged and lifted. The overload cut off limit is not a parameter used in the analysis of a Fuel Handling Accident. The overload cut off limit was incorporated on the refueling machine hoist to protect the core internals and pressure vessel from possible damage in the event the fuel assembly becomes mechanically bound as it is withdrawn from the reactor vessel. The proposed overload cut off limit was determined as follows:

$$\text{Overload Cut Off limit} = (\text{Hoist Wet Weight}) + (\text{Grapple Wet Weight}) + (\text{Max Wet Fuel Weight}) + 90 \text{ lbs.}$$

- Where:
- a) Hoist and Grapple Wet Weight = 176 lbs.
 - b) Maximum Wet Fuel Weight = 1334 lbs.

The basis for the 90 pounds had two considerations: (1) to be large enough to account for friction loads during fuel assembly withdrawal; and, (2) to be small enough to ensure that while lifting a minimum weight fuel assembly, the loads imposed on a mechanically bound fuel assembly are below the design limit specified by the fuel manufacturer. The maximum value for the existing overload cut off limit was specified by the fuel manufacturer to be 1602 pounds.

The revised overload cut off limit does not decrease the factor of safety for the refueling machine hoist below the Crane Manufacturer's [sic] Association of America (CMAA) Standard 70 required value of 5/1.

Therefore, the proposed change for the refueling machine overload cut off limit will not significantly increase the probability or consequences of an accident previously evaluated and will remain bounded by the accident analysis of Chapter 15 of the Updated Final Safety Analysis Report (UFSAR).

Standard 2 -- Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed Technical Specification amendment to Sections 3.9.6 and 4.9.6.1 would provide a revised refueling machine hoist overload cut off limit that is appropriate for the increased weight of the fuel assemblies. The increased weight of fuel assemblies results from design and fabrication improvements such as denser fuel pellets, laser welded GUARDIAN™ grids, and laser welded spacer grids. The fuel overload cut off limit was incorporated on the refueling machine hoist to protect the core internals and pressure vessel from possible damage in the event the fuel assembly becomes mechanically bound as it is withdrawn from the reactor vessel. The proposed overload cut off limit was determined as follows:

Overload Cut Off limit = (Hoist Wet Weight) + (Grapple Wet Weight) +
(Max Wet Fuel Weight) + 90 lbs.

Where: a) Hoist and Grapple Wet Weight = 176 lbs.
 b) Maximum Wet Fuel Weight = 1334 lbs.

The basis for the 90 pounds had two considerations: (1) to be large enough to account for friction loads during fuel assembly withdrawal; and, (2) to be small enough to ensure that while lifting a minimum weight fuel assembly, the loads imposed on a mechanically bound fuel assembly are below the design limit specified by the fuel manufacturer. The maximum value for the existing overload cut off limit was specified by the fuel manufacturer to be 1602 pounds to limit the potential for damage to the fuel assemblies.

The accident of concern related to the change in the refueling machine overload cut off limit is the Fuel Handling Accident. This accident occurs when a fuel bundle becomes disengaged from the refueling machine

grapple. The change of the refueling machine overload cut off limit does not change the way in which the refueling machine grapple engages the fuel assemblies. Since fuel handling is the subject of change, no new or different kinds of accidents are created.

Therefore, it can be concluded that the proposed change to Sections 3.9.6 and 4.9.6.1 will not create the possibility of a new or different kind of accident from any accident previously evaluated.

Standard 3 -- Does the proposed change involve a significant reduction in a margin of safety.

The proposed Technical Specification amendment to Sections 3.9.6 and 4.9.6.1 would provide a revised refueling machine hoist overload cut off limit that is appropriate for the increased weight of the fuel assemblies. The increased weight of fuel assemblies results from design and fabrication improvements such as denser fuel pellets, laser welded GUARDIAN™ grids, and laser welded spacer grids. The overload cut off limit was incorporated on the refueling machine hoist to protect the core internals and pressure vessel from possible damage in the event the fuel assembly becomes mechanically bound as it is withdrawn from the reactor vessel. The proposed overload cut off limit was determined as follows:

Overload Cut Off limit = (Hoist Wet Weight) + (Grapple Wet Weight) +
(Max Wet Fuel Weight) + 90 lbs.

Where: a) Hoist and Grapple Wet Weight = 176 lbs.
 b) Maximum Wet Fuel Weight = 1334 lbs.

The basis for the 90 pounds had two considerations: (1) to be large enough to account for friction loads during fuel assembly withdrawal; and, (2) to be small enough to ensure that while lifting a minimum weight fuel assembly, the loads imposed on a mechanically bound fuel assembly are below the design limit specified by the fuel manufacturer. The maximum value for the existing overload cut off limit was specified by the fuel manufacturer to be 1602 pounds.

The overload cut off limit is not a parameter used in the analysis of a Fuel Handling Accident. The conclusions regarding the radiological consequences of the Fuel Handling Accident remain valid, and there is no decrease in the margin of safety.

Therefore, it can be concluded that the proposed change will maintain the integrity of the fuel assemblies and reactor vessel internals and does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied.

Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendments until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendments before the expiration of the 30-day notice period, provided that its final determination is that the amendments involve no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish in the FEDERAL REGISTER a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Rules Review and Directives Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D22, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC.

The filing of requests for hearing and petitions for leave to intervene is discussed below.

By February 6, 1995 , the licensee may file a request for a hearing with respect to issuance of the amendments to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Phoenix Public Library, 12 East McDowell Road, Phoenix, Arizona 85004. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other

interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to 15 days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than 15 days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendments under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendments and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendments.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. Where petitions are filed during the last 10 days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 248-5100 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number N1023 and the following message addressed to Theodore R. Quay: petitioner's name and telephone number, date petition was mailed, plant name, and publication date and page number of this FEDERAL REGISTER notice. A copy

of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to Nancy C. Loftin, Esq., Corporate Secretary and Counsel, Arizona Public Service Company, P.O. Box 53999, Mail Station 9068, Phoenix, Arizona 85072-3999, attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated October 31, 1994, as supplemented by letter dated December 28, 1994, which are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Phoenix Public Library, 12 East McDowell Road, Phoenix, Arizona 85004.

Dated at Rockville, Maryland, this 3rd day of January 1995.

FOR THE NUCLEAR REGULATORY COMMISSION



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