

August 12, 2003

Mr. Gregg R. Overbeck  
Senior Vice President, Nuclear  
Arizona Public Service Company  
P. O. Box 52034  
Phoenix, AZ 85072-2034

SUBJECT: PALO VERDE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 -  
NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO  
FACILITY OPERATING LICENSES, PROPOSED NO SIGNIFICANT HAZARDS  
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING  
(TAC NOS. MB6726, MB6727, AND MB6728)

Dear Mr. Overbeck:

In your letter dated November 7, 2002 (102-04864), you proposed amendments to Facility Operating License Nos. NPF-41, NPF-51, and NPF-74 for the Palo Verde Nuclear Generating Station, Units 1, 2, and 3, respectively. The proposed amendments consisted of changes to Technical Specifications (TSs) 3.2.4, "Departure From Nucleate Boiling Ratio (DNBR)," TS 3.3.1, "Reactor Protective System (RPS) Instrumentation - Operating," TS 3.3.3, "Control Element Assembly Calculators (CEACs)" to support the replacement of the Core Protection Calculator System (CPCS) in the upcoming unit refueling outages beginning with Unit 2 in the fall of 2003.

In your letter of July 30, 2003 (102-04976), you proposed an additional change to the TSs to identify, in TS 5.4.1, "Administrative Controls - Procedures," the software program manual used to modify the core protection calculator addressable constants. Enclosed is a Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards, and Opportunity for a Hearing for your application as modified by the letter dated July 30, 2003. The Notice will be published in the *Federal Register* as an individual notice.

Sincerely,

**/RA/**

Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

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

Enclosure: Notice of Consideration of Issuance of Amendments

cc w/encl: See next page

Palo Verde Generating Station, Units 1, 2, and 3

cc:

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**/RA/**

Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

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

Enclosure: Notice of Consideration of Issuance  
of Amendments

cc w/encl: See next page

**ACCESSION NO: ML032240711**

**NRR-106**

OFFICE	PDIV-2/PM	PDIV-1/LA	PDIV-2/SC
NAME	JDonohew:sp	MMcAllister	SDembek
DATE	8/12/03	8/12/03	8/12/03

UNITED STATES NUCLEAR REGULATORY COMMISSIONARIZONA PUBLIC SERVICE COMPANYDOCKET NOS. STN 50-528, STN 50-529, AND STN 50-530NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS 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 amendments to Facility Operating License Nos. NPF-41, NPF-51, and NPF-74 issued to Arizona Public Service Company (the licensee) for operation of the Palo Verde Nuclear Generating Station, Units 1, 2, and 3, located in Maricopa County, Arizona.

The proposed amendments in the licensee's application dated November 7, 2002, as supplemented by letters dated April 25, July 10, and July 30, 2003, would revise TS 3.2.4, "Departure From Nucleate Boiling Ratio (DNBR)," TS 3.3.1, "Reactor Protective System (RPS) Instrumentation - Operating," TS 3.3.3, "Control Element Assembly Calculators (CEACs)," and TS 5.4.1, "Administrative Controls - Procedures." The proposed changes are to Limiting Conditions for Operation (LCOs), LCO Actions, LCO Surveillance Requirements, and the procedures used to modify the core protection calculator addressable constants. The amendments support the replacement of the Core Protection Calculator System (CPCS). The replacement CPCS will perform functionally identical safety-related algorithms as the existing CPCS, although on a newer platform, and the CPCS design function will remain unchanged. Because the replacement CPCS for each unit will be installed in refueling outages for the three units over at least a year, starting with the Unit 2 fall 2003 outage, the licensee has proposed to have the TSs contain both the current requirements and the new requirements with the phrases

"(Before CPC Upgrade)" and "(After CPC Upgrade)" on the TSs to show which requirements apply to which case.

The application was noticed in the FEDERAL REGISTER on December 10, 2002 (67 FR 75868) for the changes to TSs 3.2.4, 3.3.1, and 3.3.3. Since that notice, the licensee has submitted its supplemental letter dated July 30, 2003, which provided an additional proposed change to TS 5.4.1, "Administrative Controls - Procedures." This additional proposed change is related to the procedures used to modify the CPCS addressable constants.

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 Title 10 of the CODE OF FEDERAL REGULATIONS (10 CFR), Section 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:

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

Response: No.

The Core Protection Calculator System (CPCS) is being replaced due primarily to parts obsolescence. The replacement CPCS will perform functionally identical safety-related algorithms as the existing CPCS, but on a newer platform. The CPCS design function will remain unchanged.

The physical location of the replacement CPCS will be the same as the existing CPCS in the auxiliary protective cabinets. Installation will occur during refueling outages when the system is not required for service. [The] majority of the testing will be performed prior to installation.

The CPCS is not an initiator of any analyzed accident, but is used for mitigation of a large number of anticipated operational occurrences and a small number of accidents. Since the CPCS is not an accident initiator, and the replacement CPCS is functionally unchanged, the CPCS replacement will not increase the probability of an accident.

The functionality of the existing CPCS safety related algorithms are replicated in the System Requirements Specification for the Common Q [Common Qualified] Core Protection Calculator System. The basic Common Q CPCS design concept was approved by NRC Safety Evaluation (SE), Acceptance For Referencing Of Topical Report CENPD-396-P, Rev. 01, "Common Qualified Platform" and Appendices 1, 2, 3 and 4, Rev. 01, dated August 11, 2000 (Ref. 2 [listed in the enclosure to the amendment request]), and there have been no significant functional changes to the design as presented. The requirements for response time and accuracy that are assumed in the Palo Verde Nuclear Generating Station (PVNGS) Updated Final Safety Analysis Report (UFSAR) accident analysis will continue to be met. Therefore, since the new [replacement] CPCS will be capable of performing the same safety-related functions within the same response time and accuracy as the existing CPCS, the proposed change does not involve a significant increase in the consequences of an accident previously evaluated.

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

Response: No.

The CPCS provides a monitoring and detection function and is not an initiator for any accident. The CPCS provides Reactor Protection System (RPS) trips on Low Departure from Nucleate Boiling Ratio (DNBR) and High Local Power Density (LPD) in response to calculations involving several input variables. It also provides a Control Element Assembly Withdrawal Prohibit (CWP) signal to the Plant Protection System (PPS), and provides indication and annunciation. The CPCS performs no other plant functions, and is not used to initiate any ESF [(Engineered Safety Feature)] functions. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

Response: No.

The [new] CPCS is a replacement for the existing CPCS. It will retain the same safety-related functionality as the existing CPCS. The equipment will be qualified in accordance with requirements described in the Palo Verde UFSAR.

The replacement CPCS will perform functionally identical safety-related algorithms as the existing CPCS, will trip in response to the same inputs with equivalent accuracy, and will meet the same four channel separation requirements. The only significant area of difference involves the platform. The Common Q platform uses a consistent set of qualified building blocks (Advant Controllers, Flat Panel Displays, Power Supplies, and Communication Systems) that can be used for any safety system application. For Palo Verde purposes, the only application of this platform at this time will be for use as a CPCS. The new platform will include improved human factors and fault tolerance within each CPCS channel.

In summary, the replacement CPCS performs the same functions as the existing CPCS, meets the qualification requirements of the existing CPCS, and meets the accuracy standards of the existing CPCS. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, APS [(the licensee)] concludes that the proposed amendments(s) present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

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 Chief, Rules and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room 6D59, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland.

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

By September 17, 2003, the licensee may file a request for a hearing with respect to issuance of the amendments to the subject facility operating licenses 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, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland, and available electronically on the Internet at the NRC Web site <http://www.nrc.gov/reading-rm/doc-collections/cfr/>. If there are problems in accessing the document, contact the Public Document Room Reference staff at

1-800-397-4209, 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov). 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 20555-0001, Attention: Rulemakings and Adjudications Staff, or may be delivered to the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland, by the above date.

Because of the continuing disruptions in delivery of mail to United States Government offices, it is requested that petitions for leave to intervene and requests for hearing be transmitted to the Secretary of the Commission either by means of facsimile transmission to 301-415-1101 or by e-mail to [hearingdocket@nrc.gov](mailto:hearingdocket@nrc.gov). A copy of the request for hearing and petition for leave to intervene should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and because of continuing disruptions in delivery of mail to United States Government offices, it is requested that copies be transmitted either by means of facsimile transmission to 301-415-3725 or by e-mail to [OGCMailCenter@nrc.gov](mailto:OGCMailCenter@nrc.gov). A copy of the request for hearing and petition for leave to intervene should also be sent to Kenneth C. Manne, Senior Attorney, Arizona Public Service Company, P.O. Box 52034, MS 7636, Phoenix, Arizona 85072-2034, 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 amendments dated November 7, 2002, as supplemented by letters dated April 25, July 10, and July 30, 2003, which is available for public inspection at the Commission's PDR, located at One White Flint North, File Public Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and

Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 12th day of August 2003.

FOR THE NUCLEAR REGULATORY COMMISSION

***/RA/***

Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation