

October 8, 1998

Mr. James M. Levine
Senior Vice President, Nuclear
Arizona Public Service Company
Post Office Box 53999
Phoenix, Arizona 85072-3999

SUBJECT: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A
HEARING - PALO VERDE NUCLEAR GENERATING STATION UNIT 3

Dear Mr. Levine:

Enclosed is a copy of a "Notice of Consideration of Issuance of Amendment to Facility
Operating License, Proposed No Significant Hazards Consideration Determination, and
Opportunity for a Hearing" for your information. This notices relates to your application for
amendment dated October 6, 1998, that would clarify the power level threshold at which certain
reactor protective system instrumentation trips must be enabled and may be bypassed and
clarify that this level is a percentage of the neutron flux at rated thermal power.

This notice has been forwarded to the Office of the Federal Register for publication.

Sincerely,
Original Signed By
Mel B. Fields, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. STN 50-530

Enclosure: Notice

cc w/encl: See next page

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Mr. James M. Levine

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October 8, 1998

cc w/encl:

Mr. Steve Olea
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Douglas Kent Porter
Senior Counsel
Southern California Edison Company
Law Department, Generation Resources
P.O. Box 800
Rosemead, California 91770

Senior Resident Inspector
USNRC
P. O. Box 40
Buckeye, Arizona 85326

Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
Harris Tower & Pavillion
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

Chairman, Board of Supervisors
ATTN: Chairman
301 W. Jefferson, 10th Floor
Phoenix, Arizona 85003

Mr. Aubrey V. Godwin, Director
Arizona Radiation Regulatory Agency
4814 South 40 Street
Phoenix, Arizona 85040

Ms. Angela K. Krainik, Manager
Nuclear Licensing
Arizona Public Service Company
P.O. Box 52034
Phoenix, Arizona 85072-2034

Mr. John C. Horne, Vice President
Power Supply
Palo Verde Services
2025 N. Third Street, Suite 220
Phoenix, Arizona 85004

Mr. David Summers
Public Service Company of New Mexico
414 Silver SW, #1206
Albuquerque, New Mexico 87102

Mr. Robert D. Bledsoe
Southern California Edison Company
14300 Mesa Road, Drop D41-SONGS
San Clemente, California 92672

Mr. Robert Henry
Salt River Project
6504 East Thomas Road
Scottsdale, Arizona 85251

Terry Bassham, Esq.
General Counsel
El Paso Electric Company
123 W. Mills
El Paso, Texas 79901

Mr. John Schumann
Los Angeles Department of Water & Power
Southern California Public Power Authority
P.O. Box 51111, Room 1255-C
Los Angeles, California 90051

UNITED STATES NUCLEAR REGULATORY COMMISSIONARIZONA PUBLIC SERVICE COMPANYDOCKET NO. STN 50-530NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE, PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION, AND OPPORTUNITY FOR A HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-74, issued to Arizona Public Service Company (APS or the licensee) for the Palo Verde Nuclear Generating Station (PVNGS) Unit 3 located in Maricopa County, Arizona.

The proposed amendment would clarify the power level threshold at which certain reactor protective system (RPS) instrumentation trips must be enabled and may be bypassed, and clarify that this level is a percentage of the neutron flux at rated thermal power (RTP). The bypass power level, 1E-4% RTP, would be specified as logarithmic power instead of thermal power. The intent of (and the implementation of) the 1E-4% RTP RPS instrumentation bypass threshold level in the technical specifications (TS) has always been that this power level is neutron power, which would be indicated by logarithmic power, and is not the heat transfer from the reactor core to the coolant, including decay heat, which is the thermal power definition in the TS.

This exigent situation for PVNGS Unit 3 exists because the current "THERMAL POWER" and "RATED THERMAL POWER" (RTP) wording in the PVNGS TS, when interpreted literally in

its application in TS Table 3.3.1-1 footnote (b), could prevent the resumption of operation of the unit following its current refueling outage. This exigent situation could not have been avoided because, although this wording has existed in the PVNGS TS since initial licensing, it was not identified as a potential source of conflict until APS learned on or about September 24, 1998, of emergency TS amendment requests by Southern California Edison Company, for the San Onofre Nuclear Generating Station, and Entergy Corporation, for the Waterford Nuclear Station.

The literal interpretation of "THERMAL POWER" in TS Table 3.3.1-1 footnote (b) could prevent the return to power operation of a shutdown reactor. This footnote specifies that the local power density-high trip and departure from nucleate boiling ratio-low trip may be bypassed when thermal power is less than 1E-4% RTP, and that the bypass must be automatically removed when thermal power is at or above 1E-4% RTP. Since thermal power, as defined in TS Section 1.1, includes decay heat, and decay heat would remain above 1E-4% RTP for a considerable time after shutdown, the literal interpretation of thermal power would effectively prevent the local power density and departure from nucleate boiling ratio trips from being bypassed during a normal outage, which would prevent low power testing and subsequent startup.

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

Pursuant to 10 CFR 50.91(a)(6) for amendments to be granted under exigent circumstances, the NRC staff must determine 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 amendment 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. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change would replace the words "THERMAL POWER" with "logarithmic power" for the 1E-4% rated thermal power (RTP) level threshold in Table 3.3.1-1 footnotes (a) and (b), surveillance requirement SR 3.3.1.7 Note 2, and Table 3.3.2-1 footnote (d) for the reactor protective system (RPS) instrumentation. The purpose of the 1E-4% RTP threshold is to (1) specify the power, below which, the logarithmic power level trip is required to be operable and surveilled, and (2) specify the power, above which, the local power density (LPD) and departure from nucleate boiling ratio (DNBR) trips are required to be operable. For these purposes, the appropriate power threshold should be logarithmic power, which is the power indicated on the logarithmic nuclear instrumentation, and not thermal power. Thermal power is defined in TS section 1.1 as the total reactor heat transfer rate to the reactor coolant, and would include decay heat. Thermal power would therefore not drop to 1E-4% RTP for a considerable period of time after shutdown, and would not provide the plant protective function correlation required at 1E-4% neutron RTP. However, logarithmic power, which is indicated by neutron flux, does provide the plant protective function correlation required at 1E-4% neutron RTP for the required reactor trips as required by safety analyses. The logarithmic power level of 1E-4% neutron RTP nominally correlates to the neutron flux measured by the excore neutron instrumentation that is 1E-4% of the neutron flux at 100% RTP (3876 MWt) measured by the excore neutron instrumentation.

The proposed editorial amendment would also replace "RTP" with "NRTP," in Table 3.3.1-1 footnotes (a) and (b), surveillance requirement SR 3.3.1.7 Note 2, and Table 3.3.2-1 footnotes (c) and (d). A definition would be added for NRTP (nuclear rated thermal power) in section 1.1 as the indicated neutron flux at RTP. These editorial clarifications will reflect the fact that the logarithmic power level of 1E-4% is not a percentage of the "total reactor core heat transfer rate to the reactor coolant of 3876 MWt," as RTP is defined in section TS 1.1, but is instead a percentage of the indicated neutron flux at RTP.

An editorial change is also proposed to specify NRTP as the "ALLOWABLE VALUE" parameter for the high logarithmic power level trip setpoint in Table 3.3.1-1

to correct the unintended omission of the trip setpoint parameter during preparation of the Improved Technical Specifications. This change will fill in the omitted parameter with the correct parameter of NRTP that is also consistent with the high logarithmic power trip setpoint parameter in Table 3.3.2-1.

These changes do not constitute a physical change to the Unit or make changes in the RPS instrumentation setpoints, system logic or manual actuation. In addition, these changes do not alter physical plant equipment or the way in which plant equipment is operated. This change is editorial in that it corrects the TS wording to match the appropriate power parameter that was originally intended and required by safety analyses, and that has been implemented since original licensing of the PVNGS plants. Therefore, these changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed change would replace the words "THERMAL POWER" with "logarithmic power" for the 1E-4% RTP level threshold in Table 3.3.1-1 footnotes (a) and (b), surveillance requirement SR 3.3.1.7 Note 2, and Table 3.3.2-1 footnote (d) for the RPS instrumentation. The purpose of the 1E-4% RTP threshold is to (1) specify the power, below which, the logarithmic power level trip is required to be operable and surveilled, and (2) specify the power, above which, the LPD and DNBR trips are required to be operable. For these purposes, the appropriate power threshold should be logarithmic power, which is the power indicated on the logarithmic nuclear instrumentation, and not thermal power. Thermal power is defined in TS section 1.1 as the total reactor heat transfer rate to the reactor coolant, and would include decay heat. Thermal power would therefore not drop to 1E-4% RTP for a considerable period of time after shutdown, and would not provide the plant protective function correlation required at 1E-4% neutron RTP. However, logarithmic power, which is indicated by neutron flux, does provide the plant protective function correlation required at 1E-4% neutron RTP for the required reactor trips as required by safety analyses.

The proposed editorial amendment would also replace "RTP" with "NRTP," in Table 3.3.1-1 footnotes (a) and (b), surveillance requirement SR 3.3.1.7 Note 2, and Table 3.3.2-1 footnotes (c) and (d). A definition would be added for NRTP (nuclear rated thermal power) in section 1.1 as the indicated neutron flux at RTP. These editorial clarifications will reflect the fact that the logarithmic power level of 1E-4% is not a percentage of the "total reactor core heat transfer rate to the reactor coolant of 3876 MWt," as RTP is defined in section TS 1.1, but is instead a percentage of the indicated neutron flux at RTP.

An editorial change is also proposed to specify NRTP as the "ALLOWABLE VALUE" parameter for the high logarithmic power level trip setpoint in Table 3.3.1-1

to correct the unintended omission of the trip setpoint parameter during preparation of the Improved Technical Specifications. This change will fill in the omitted parameter with the correct parameter of NRTP that is also consistent with the high logarithmic power trip setpoint parameter in Table 3.3.2-1.

These changes do not constitute a physical change to the Unit or make changes in the RPS instrumentation setpoints, system logic or manual actuation. In addition, these changes do not alter physical plant equipment or the way in which plant equipment is operated. The proposed change does not introduce any new modes of plant operation or new accident precursors. This change is editorial in that it corrects the TS wording to match the appropriate power parameter that was originally intended and required by safety analyses, and that has been implemented since original licensing of the PVNGS plants. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety.

The proposed change would replace the words "THERMAL POWER" with "logarithmic power" for the 1E-4% RTP level threshold in Table 3.3.1-1 footnotes (a) and (b), surveillance requirement SR 3.3.1.7 Note 2, and Table 3.3.2-1 footnote (d) for the RPS instrumentation. The purpose of the 1E-4% RTP threshold is to (1) specify the power, below which, the logarithmic power level trip is required to be operable and surveilled, and (2) specify the power, above which, the LPD and DNBR trips are required to be operable. For these purposes, the appropriate power threshold should be logarithmic power, which is the power indicated on the logarithmic nuclear instrumentation, and not thermal power. Thermal power is defined in TS section 1.1 as the total reactor heat transfer rate to the reactor coolant, and would include decay heat. Thermal power would therefore not drop to 1E-4% RTP for a considerable period of time after shutdown, and would not provide the plant protective function correlation required at 1E-4% neutron RTP. However, logarithmic power, which is indicated by neutron flux, does provide the plant protective function correlation required at 1E-4% neutron RTP for the required reactor trips as required by safety analyses.

The proposed editorial amendment would also replace "RTP" with "NRTP," in Table 3.3.1-1 footnotes (a) and (b), surveillance requirement SR 3.3.1.7 Note 2, and Table 3.3.2-1 footnotes (c) and (d). A definition would be added for NRTP (nuclear rated thermal power) in section 1.1 as the indicated neutron flux at RTP. These editorial clarifications will reflect the fact that the logarithmic power level of 1E-4% is not a percentage of the "total reactor core heat transfer rate to the reactor coolant of 3876 MWt," as RTP is defined in section TS 1.1, but is instead a percentage of the indicated neutron flux at RTP.

An editorial change is also proposed to specify NRTP as the "ALLOWABLE VALUE" parameter for the high logarithmic power level trip setpoint in Table 3.3.1-1 to correct the unintended omission of the trip setpoint parameter during preparation of the Improved Technical Specifications. This change will fill in the omitted parameter with the correct parameter of NRTP that is also consistent with the high logarithmic power trip setpoint parameter in Table 3.3.2-1.

These changes do not constitute a physical change to the Unit or make changes in the RPS instrumentation setpoints, system logic or manual actuation. In addition, these changes do not alter physical plant equipment or the way in which plant equipment is operated. This change is editorial in that it corrects the TS wording to match the appropriate power parameter that was originally intended and required by safety analyses, and that has been implemented since original licensing of the PVNGS plants. Therefore, this change does not involve a significant reduction in a 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 14 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of the 14-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 amendment before the expiration of the 14-day notice period, provided that its final determination is that the amendment involves 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. 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. 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 November 13, 1998, the licensee may file a request for a hearing with respect to issuance of the amendment 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, 1221 N. Central Avenue, 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 a 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 amendment 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 the amendment is issued before the expiration of the 30-day hearing period, the Commission will make a final determination on the issue of no significant hazards consideration. If a hearing is requested, 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 amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

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, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to Nancy C. Loftin,

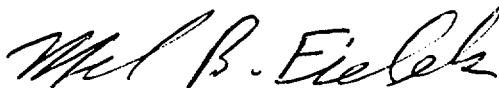
Esq., Corporate Secretary and Counsel, Arizona Public Service Company, P.O. Box 53999, Mail Station 9068, Phoenix, Arizona 85072-3999, attorney for the licensee.

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 6, 1998, which is 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, 1221 N. Central Avenue, Phoenix, Arizona 85004

Dated at Rockville, Maryland, this 8th day of October 1998.

FOR THE NUCLEAR REGULATORY COMMISSION



Mel B. Fields, Project Manager
Project Directorate IV-2
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation