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SUBJECT: Application for amend to License NPF-51, supporting Cycle 3 operation.

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WILLIAM F. CONWAY
EXECUTIVE VICE PRESIDENT
NUCLEAR

161-02584-WFC/RAB/KLMC
November 6, 1989

Docket No. STN 50-529

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

Reference: Letter to U. S. NRC from W. F. Conway, APS, dated
October 24, 1989; Subject: Reload Safety Analysis
Report for Unit 2, Cycle 3 (161-02524)

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Unit 2
Proposed Reload Technical Specification Changes -
Unit 2, Cycle 3
File: 89-056-026, 89-005-419.5

Attached please find proposed changes to the PVNGS Unit 2 Technical Specifications. The proposed changes are required to support Cycle 3 operation of PVNGS Unit 2. The Reload Analysis Report for Unit 2, Cycle 3 was provided by the referenced letter.

For each of the proposed Technical Specification changes, the following information has been included within this amendment request:

- A. Description of the Technical Specification Amendment Request
- B. Purpose of the Technical Specification
- C. Need for the Technical Specification Amendment
- D. Basis for Proposed No Significant Hazards Consideration Determination
- E. Safety Evaluation for the Amendment Request
- F. Environmental Impact Consideration Determination
- G. Marked-up Technical Specification Change Pages

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U. S. Nuclear Regulatory Commission
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161-02584-WFC/RAB/KLMC
November 6, 1989

Pursuant to 10 CFR 50.91(b)(1), by copy of this letter and its Attachments, APS has notified the Arizona Radiation Regulatory Agency of this request for a Technical Specification amendment.

Approval of this Technical Specification amendment request is required prior to Mode 5 entry. At the present, entry into Mode 5 is expected by April 15, 1990.

If you should have any questions concerning this request, contact Mr. R. A. Bernier of my staff at (602) 371-4295.

Sincerely,



WFC/RAB/KLMC

Attachments

cc: T. L. Chan (all w/Attachments)
M. J. Davis
J. B. Martin
T. J. Polich
C. E. Tedford
A. C. Gehr

STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, W. F. Conway, represent that I am Executive Vice President - Nuclear, that the foregoing document has been signed by me on behalf of Arizona Public Service Company with full authority to do so, that I have read such document and know its contents, and that to the best of my knowledge and belief, the statements made therein are true and correct.

W. F. Conway
W. F. Conway

Sworn to before me this 6th day of November, 1989.

Nora E. Meader
Notary Public

My Commission Expires:

My Commission Expires April 6, 1991

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ATTACHMENT 1

SHUTDOWN MARGIN

A. DESCRIPTION OF THE TECHNICAL SPECIFICATION AMENDMENT REQUEST

This proposed Technical Specification change involves the revision of Figure 3.1-1A and Tables 3.1-2, 3.1-3 and 3.1-5. Figure 3.1-1A provides shutdown requirements versus Reactor Coolant System (RCS) cold leg temperature for the case where any full-length Control Element Assembly (CEA) is withdrawn. The proposed change to this figure increases the required shutdown margin from 3.5 to 4.0% delta K/K for the temperature range 0 to 350 degrees F. Tables 3.1-2, 3.1-3 and 3.1-5 provide required boron mixing frequencies in the event that one or both startup channel neutron flux alarms are inoperable. The proposed changes to these tables increase the monitoring frequency for backup boron dilution detection.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

The shutdown margin requirements of Figure 3.1-1A ensure that the reactor remains subcritical following a design basis event (DBE) or an anticipated operational occurrence (AOO). Tables 3.1-2, 3.1-3 and 3.1-5 provide the frequencies for monitoring the RCS boron concentration in the event that one or both startup channel high neutron flux alarms are inoperable. The monitoring frequencies ensure that an inadvertent boron dilution event will be observed and that the operator will be provided with sufficient time to terminate the event before a complete loss of shutdown margin occurs.

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

The proposed Technical Specification changes to the shutdown margin and boron frequency requirements are necessary to ensure that the specifications are consistent with the safety analysis performed for the Unit 2, Cycle 3 core design. These more restrictive operating limits are required to ensure the safety analysis remains bounding.

D. BASIS FOR PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

1. The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a 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.

A discussion of these standards as they relate to the amendment request follows:

Standard 1: Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed Technical Specification changes are required to make the Unit 2 Technical Specifications consistent with the Cycle 3 safety analyses. Figure 3.1-1A provides shutdown requirements versus RCS cold leg temperatures when any full-length CEA is withdrawn. For operation below an RCS cold leg temperature of 350 degrees F, the shutdown margin must be increased from 3.5 to 4.0% delta K/K. This ensures that the consequences of DBEs and AOOs remain bounded by the safety analyses results. Tables 3.1-2, 3.1-3 and 3.1-5 provide boron monitoring frequencies when one or both startup channel high neutron flux alarms are inoperable. In some cases the required monitoring frequencies must be increased. This ensures that the time criteria for detection and correction of a boron dilution event remain the same as the safety analyses of record. The proposed changes do not affect the probability of occurrence of previously evaluated events.

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Standard 2: Create the possibility of a new or different kind of accident from any previously evaluated.

The proposed changes to Figure 3.1-1A and Tables 3.1-2, 3.1-3 and 3.1-5 are required to ensure the Technical Specifications remain consistent with the Unit 2, Cycle 3 safety analyses. The changes will not create the possibility of a new or different kind of accident previously analyzed. These changes ensure that the results of DBEs and AOOs are bounded by the safety analyses.

Standard 3: Involve a significant reduction in a margin of safety.

The bases section for the Limiting Condition for Operation (LCO) 3.1.1.2 states that the shutdown margin limits of Figure 3.1-1A are necessary to ensure that the reactor remains subcritical following a DBE or AOO. With the proposed change to Figure 3.1-1A, the Unit 2, Cycle 3 safety analyses ensure that the results of DBEs and AOOs are bounded by the reference cycle analyses. The bases section for LCO 3.1.2.7 states that the boron monitoring frequencies ensure that boron dilution events will be detected with sufficient time for the operator to terminate the event before a complete loss of shutdown margin occurs. The revised monitoring frequencies of Table 3.1-2, 3.1-3 and 3.1-5 ensure that the time criteria for these actions will be consistent with the reference cycle. Therefore, the margin of safety, as defined in the bases sections of the Technical Specifications, will be maintained.

2. The proposed amendment matches the guidance concerning the application of standards for determining whether or not a significant hazards consideration exists (51 FR 7751) by example:

(iii) For a nuclear power reactor, a change resulting from a nuclear reactor core reloading, if no fuel assemblies are significantly different from those found previously acceptable to the NRC for a previous core at the facility in question are involved. This assumes that no significant changes are made to the acceptable criteria for the Technical Specifications, the analytical methods used to demonstrate conformance with the Technical Specifications and regulations are not significantly changed, and that the NRC has previously found such methods acceptable.

E. SAFETY EVALUATION FOR THE AMENDMENT REQUEST

The proposed Technical Specification changes are required to make the Technical Specifications consistent with the Unit 2, Cycle 3 safety analyses. Figure 3.1-1A provides shutdown margin requirements versus RCS cold leg temperatures when any full-length CEA is withdrawn. For operation below an RCS cold leg temperature of 350 degrees F, the shutdown margin must be increased from 3.5 to 4.0% delta K/K. This ensures that the consequences of DBEs and AOOs remain bounded by the reference cycle analysis results. Tables 3.1-2, 3.1-3 and 3.1-5 provide boron monitoring frequencies when one or both startup channel high neutron flux alarms are inoperable. In some cases, the required monitoring frequencies must be increased. This ensures that the time criteria for detection and correction of a boron dilution event remain the same as the reference cycle. In conclusion, the proposed changes ensure that the consequences of previously analyzed events will not be greater than the reference cycle.

The revisions to Figure 3.1-1A and Tables 3.1-2, 3.1-3 and 3.1-5 are required to make the Technical Specifications consistent with the Cycle 3 safety analyses. The changes will not create the possibility of a new or different kind of accident from any accident previously analyzed. The revisions ensure that the results of DBEs and AOOs are bounded by the reference cycle analyses.

The bases section for LCO 3.1.1.2 states that the shutdown margin limits of Figure 3.1-1A are necessary to ensure that the reactor remains subcritical following a DBE or an AOO. The proposed revisions to Figure 3.1-1A assure that the reactor would remain subcritical, during Cycle 3, following a DBE or an AOO. The bases for LCO Technical Specification 3.1.2.7 states that the boron monitoring frequencies ensure that the boron dilution events will be detected with sufficient time for the operator to terminate the event before complete loss of shutdown margin. The revised monitoring frequencies of Tables 3.1-2, 3.1-3 and 3.1-5 ensure that the time criteria for these actions will be consistent with those of the reference cycle. Therefore, the margin of safety will not be reduced.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed Technical Specification change request does not involve an environmental question because operation of PVNGS Unit 2, in accordance with this change, would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board; or
2. Result in a significant change in effluents or power levels; or
3. Result in matters not previously reviewed in the licensing basis for PVNGS which may have a significant environmental impact.

G. MARKED-UP TECHNICAL SPECIFICATION CHANGE PAGES

Figure 3.1-1A	3/4 1-2A
Table 3.1-2	3/4 1-17
Table 3.1-3	3/4 1-18
Table 3.1-5	3/4 1-20

ATTACHMENT 3

CEA INSERTION LIMITS

A. DESCRIPTION OF THE TECHNICAL SPECIFICATION AMENDMENT REQUEST

The proposed amendment will revise Technical Specification Figures 3.1-3 and 3.1-4. These figures provide regulating group Control Element Assembly (CEA) insertion limits. Figure 3.1-3 provides CEA insertion limits when the Core Operating Limit Supervisory System (COLSS) is in service and Figure 3.1-4 provides the insertion limits when COLSS is out of service. The following two revisions are proposed:

- 1) The revised Figure 3.1-3 (COLSS in service) will not permit the insertion of regulating group 3 CEAs above 20% of rated thermal power. This is more restrictive than the current specification which does allow for regulating group 3 insertion above 20% power.
- 2) The revised Figure 3.1-4 (COLSS out of service) will permit slightly increased insertion of regulating group 3 CEAs between 15% and 20% of rated thermal power.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

The proposed changes to Technical Specification Figures 3.1-3 and 3.1-4 only affect the transient insertion limit lines. There are two primary purposes for the transient insertion limits. The first purpose is to ensure that adequate shutdown margin is maintained for limiting Design Basis Events (DBEs). The second purpose is to limit the potential consequences of CEA ejection accidents to acceptable levels.

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

The proposed amendment to the transient insertion limits is necessary to ensure that the Technical Specifications are consistent with the safety analyses performed for the Unit 2, Cycle 3 core design. A more restrictive transient insertion limit line is required when COLSS is in service and a slightly less restrictive limit is permitted when COLSS is out of service.

D. BASIS FOR PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

1. The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a 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.

A discussion of these standards as they relate to the amendment request follows:

Standard (1): Involve a significant increase in the probability or consequences of an accident previously evaluated.

Technical Specification Figures 3.1-3 and 3.1-4 are revised to be consistent with the Unit 2, Cycle 3 safety analyses. The probability or the consequences of an accident previously evaluated in the Updated Final Safety Analysis Report (UFSAR) will not increase because the results of the Cycle 3 safety analyses, using the revised CEA Insertion Limits of Figures 3.1-3 and 3.1-4, assure that there is sufficient margin for the most limiting DBE. The analyses performed include an evaluation of all safety analyses for which the CEA insertion limit curves are used as an initial condition. Therefore, the proposed Technical Specification changes will not increase the probability or consequences of any accidents previously evaluated.

Standard (2): Create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed revisions are required to make the Technical Specifications consistent with the Unit 2, Cycle 3 safety analyses. As proposed, Figures 3.1-3 and 3.1-4 will ensure

that the Specified Acceptable Fuel Design Limits (SAFDLs) will not be exceeded during the most limiting Anticipated Operational Occurrence (AOO). Since the Cycle 3 figures were based on meeting the same criteria as the Cycle 2 figures, the possibility of an accident of a different type than previously evaluated is not created.

Standard 3: Involve a significant reduction in a margin of safety.

Technical Specification Figures 3.1-3 and 3.1-4 require revision to ensure consistency between the Technical Specifications and the Unit 2, Cycle 3 safety analyses. The Cycle 3 limits are based on the same design criteria as that used for Cycle 2. Therefore, the margin of safety is not reduced as a result of these proposed changes.

2. The proposed amendment matches the guidance concerning the application of standards for determining whether or not a significant hazards consideration exists (51 FR 7751) by example:

(iii) For a nuclear power reactor, a change resulting from a nuclear reactor core reloading, if no fuel assemblies are significantly different from those found previously acceptable to the NRC for a previous core at the facility in question are involved. This assumes that no significant changes are made to the acceptable criteria for the Technical Specifications, the analytical methods used to demonstrate conformance with the Technical Specifications and regulations are not significantly changed, and that the NRC has previously found such methods acceptable.

E. SAFETY EVALUATION FOR THE AMENDMENT REQUEST

The proposed changes to Technical Specification Figures 3.1-3 and 3.1-4 will not increase the probability or consequences of any accidents previously evaluated in the UFSAR. The transient insertion limits of revised Figure 3.1-1 will be more restrictive, than those for Cycle 2, by not permitting regulating group 3 insertion above 20% power. Proposed Figure 3.1-4 permits increased insertion of regulating group 3 between 15% and 20% power from that in Cycle 2. These changes are consistent with the Unit 2, Cycle 3 safety analyses. The

probability or the consequences of an accident previously evaluated will not be increased because the results of the Cycle 3 safety analyses, using the revised CEA insertion limits of Figures 3.1-3 and 3.1-4, ensure that the SAFDLs will not be exceeded during the most limiting AOO. Therefore, the probability or the consequences of an accident previously evaluated in the UFSAR will not be increased.

The Unit 2, Cycle 3 transient insertion limits are based on the same design criteria as the Cycle 2 limits and operation of the reactor in accordance with the revised CEA insertion limits will ensure that the SAFDLs are not exceeded during the most limiting AOO. Therefore, the possibility of an accident or malfunction of a different type than that previously evaluated will not be created by these Technical Specification changes.

The proposed revisions to Technical Specification Figures 3.1-3 and 3.1-4 are required for consistency with the Unit 2, Cycle 3 safety analyses. The transient insertion limits are provided to ensure that the minimum shutdown margin is maintained and that the potential effects of a CEA ejection accident are limited to acceptable levels. The safety analyses performed for the Cycle 3 core design verified that operation within the revised transient insertion limits maintain those requirements. Therefore, the margin of safety as defined in the bases for the Technical Specification will not be reduced as a result of these revisions.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed Technical Specification change request does not involve an environmental question because operation of PVNGS Unit 2, in accordance with this change, would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board; or
2. Result in a significant change in effluents or power levels; or
3. Result in matters not previously reviewed in the licensing basis for PVNGS which may have a significant environmental impact.

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G. MARKED-UP TECHNICAL SPECIFICATION CHANGE PAGES

Figure 3.1-3 3/4 1-31
Figure 3.1-4 3/4 1-32



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ATTACHMENT 4

AXIAL SHAPE INDEX

A. DESCRIPTION OF THE TECHNICAL SPECIFICATION AMENDMENT REQUEST

This proposed amendment revises Technical Specification 3.2.7a. The change involves a revision to the Core Operating Limit Supervisory System (COLSS) Operable values of the core average Axial Shape Index (ASI). The proposed revision changes the limits of the core average ASI, with COLSS operable, from $-.28 < \text{ASI} < .28$ to $-.27 < \text{ASI} < .27$.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

Technical Specification 3.2.7a. is provided to ensure that the actual value of the core average ASI, when COLSS is operable, is maintained within the range of the values used in the safety analysis. The ASI limits provided in the revised Technical Specification will ensure the validity of the assumptions used in the Unit 2, Cycle 3 safety analyses.

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

The proposed Technical Specification amendment is required to ensure that the actual value of the core average ASI, when COLSS is operable, will be maintained within the range of the values used in the Unit 2, Cycle 3 safety analyses.

D. BASIS FOR PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

1. The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated;
or



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- (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.

A discussion of these standards as they relate to the amendment request follows:

Standard 1: Involve a significant increase in the probability or consequences of an accident previously evaluated.

Technical Specification 3.2.7a revision is required to be consistent with the Unit 2, Cycle 3 safety analyses. The change to the ASI limits, with COLSS operable, is more restrictive than that required for Cycle 2 operation. Therefore, the Technical Specification change will not increase the probability or the consequences of an accident previously evaluated in the UFSAR.

Standard 2: Create the possibility of a new or different kind of accident from any accident previously evaluated.

The change to Technical Specification 3.2.7a is required to ensure consistency between the Cycle 3 safety analyses and the Technical Specifications is maintained. Reactor operation within the ASI limits, as proposed, is more restrictive than what was required for Cycle 2 operation. The possibility of an accident different from those previously evaluated in the UFSAR will not be created.

Standard 3: Involve a significant reduction in a margin of safety.

The limits, as provided in this Technical Specification amendment, for the core average ASI, with COLSS operable, ensure that the actual value of the ASI is maintained within the range of values used in the Unit 2, Cycle 3 safety analyses. Therefore, no reduction in a margin of safety, as defined by the Technical Specification bases, will occur as result of this amendment request.

2. The proposed amendment matches the guidance concerning the application of standards for determining whether or not a significant hazards consideration exists (51 FR 7751) by example:

- (iii) For a nuclear power reactor, a change resulting from a nuclear reactor core reloading, if no fuel assemblies are significantly different from those found previously acceptable to the NRC for a previous core at the facility in question are involved. This assumes that no significant changes are made to the acceptable criteria for the Technical Specifications, the analytical methods used to demonstrate conformance with the Technical Specifications and regulations are not significantly changed, and that the NRC has previously found such methods acceptable.

E. SAFETY EVALUATION FOR THE AMENDMENT REQUEST

The revision to the ASI limits, as proposed by this amendment request, are more restrictive than those which were applicable for Cycle 2 operation. This revision to Technical Specification 3.2.7a is required to maintain the consistency between the specification and the Unit 2, Cycle 3 safety analyses. Thus, this Technical Specification amendment will not increase the probability or the consequences of an accident previously evaluated for PVNGS in the UFSAR.

The possibility of an accident or malfunction of a different type than previously evaluated will not be created by this Technical Specification change because the proposed change to the ASI limits, when COLSS is operable, is more restrictive than previously required for Cycle 2. In addition, no new equipment is required as a result of this amendment and therefore no malfunctions of a different type will be created.

The bases for Technical Specification 3.2.7 is to ensure that the actual value of the core average ASI is maintained within the range of values used in the safety analyses. This amendment is required to ensure the consistency of the Technical Specification with respect to the Cycle 3 safety analyses. Therefore, no reduction in the margin of safety will result due this proposed amendment.



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F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed Technical Specification change request does not involve an environmental question because operation of PVNGS Unit 2, in accordance with this change, would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board; or
2. Result in a significant change in effluents or power levels; or
3. Result in matters not previously reviewed in the licensing basis for PVNGS which may have a significant environmental impact.

G. MARKED-UP TECHNICAL SPECIFICATION CHANGE PAGES

3/4 2-11

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ATTACHMENT 2

DNBR MARGIN

A. DESCRIPTION OF THE TECHNICAL SPECIFICATION AMENDMENT REQUEST

This proposed amendment revises Technical Specification Figures 3.2-2 and 3.2-2A. These figures provide DNBR margin limits for various configurations of the Core Operating Limit Supervisory System (COLSS) and Control Element Assembly Calculators (CEACs) inoperable. The changes provide assurance that operation of the reactor, within the limits as specified on proposed Figures 3.2-2 and 3.2-2A, will not violate the Specified Acceptable Fuel Design Limits (SAFDLs) during an Anticipated Operational Occurrence (AOO).

B. PURPOSE OF THE TECHNICAL SPECIFICATION

The DNBR limits of Figures 3.2-2 and 3.2-2A provide a conservative envelope of operating conditions consistent with the safety analysis assumptions for Unit 2, Cycle 3. The limits have been analytically demonstrated to maintain an acceptable minimum DNBR throughout all AOO's.

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

The proposed revisions to Technical Specification Figures 3.2-2 and 3.2-2A are required to ensure Technical Specification consistency with the safety analyses performed for Unit 2, Cycle 3 core design.

D. BASIS FOR PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

1. The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not:



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- (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.

A discussion of these standards as they relate to the amendment request follows:

Standard (1): Involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed changes to Technical Specification Figures 3.2-2 and 3.2-2A will not increase the probability or consequences of an accident previously evaluated because the revisions are required to maintain consistency with the Unit 2, Cycle 3 safety analysis.

- a) The Cycle 3 safety analyses have shown that when COLSS is in service and at least one CEAC is operable, Technical Specification 3.2.4a. provides adequate margin to DNB to accommodate the most limiting AOO without violating the SAFDLs.
- b) For the case where neither CEAC is operable and COLSS is in service, the Core Protection Calculators (CPCs) cannot obtain the required position information to ensure that the SAFDLs will not be violated during an AOO. As a result of the reevaluation of the limiting AOO for the Cycle 3 core design, Technical Specification 3.2.4b requires that the core Power Operation Limit (POL), as calculated by COLSS, be reduced as currently indicated on Figure 3.2-1. This reduction in COLSS POL will ensure that the most limiting AOO will not result in a violation of the SAFDLs.
- c) The proposed revision to Figure 3.2-2 accounts for the situation when COLSS is out of service but at least one CEAC is operable. In this case the Cycle 3 safety analyses has shown that by maintaining the CPC calculated DNBR above the value shown in the revised figure, the limiting AOO will not result in a violation of the SAFDLs.

- d) When COLSS and both CEACs are out of service, there must be additional margin in the initial CPC DNBR value to ensure that the limiting AOO will not result in exceeding a SAFDL. The evaluation of the Cycle 3 core design has shown that by maintaining the CPC calculated DNBR above the limits shown in proposed Figure 3.2-2A, the SAFDLs will not be exceeded during the most limiting AOO.

Standard (2): Create the possibility of a new or different kind of accident from any previously evaluated.

The revisions to Technical Specification Figures 3.2-2 and 3.2-2A are required to make the Technical Specifications consistent with the Unit 2, Cycle 3 safety analyses. Therefore, the change will not create the possibility of a new or different kind of accident from any accident previously analyzed.

Standard (3): Involve a significant reduction in a margin of safety.

The revisions in the content of Figures 3.2-2 and 3.2-2A are required to make the Technical Specifications consistent with the Cycle 3 safety analyses. Operation of the reactor within the limits of the revised figures will ensure that the SAFDLs are not exceeded during the most limiting AOO. The Cycle 3 figures are based on the same design criteria as the Cycle 2 figures. Therefore, the margin of safety will not be reduced as a result of the proposed changes.

2. The proposed amendment matches the guidance concerning the application of standards for determining whether or not a significant hazards consideration exists (51 FR 7751) by example:

- (iii) For a nuclear power reactor, a change resulting from a nuclear reactor core reloading, if no fuel assemblies are significantly different from those found previously acceptable to the NRC for a previous core at the facility in question are involved. This assumes that no significant changes are made to the acceptable criteria for the Technical Specifications, the analytical methods used to demonstrate conformance with the Technical Specifications and regulations are not significantly changed, and that the NRC has previously found such methods acceptable.

E. SAFETY EVALUATION FOR THE AMENDMENT REQUEST

The proposed Technical Specification amendment will not increase the probability or consequences of any accident previously evaluated. Figures 3.2-2 and 3.2-2A are required to be updated to be consistent with the Unit 2, Cycle 3 safety analyses results:

- a) The Unit 2, Cycle 3 analyses results indicate that when COLSS is in service and at least one CEAC is operable, Technical Specification 3.2.4a provides adequate margin to DNB to accommodate the most limiting AOO without violating the SAFDLs.
- b) The revision to Figure 3.2-2 accounts for the situation where COLSS is out of service and at least one CEAC is operable. In this case, the Unit 2, Cycle 3 analyses results show that by maintaining the CPC calculated DNBR above the value shown in the revised figure that the limiting AOO will not result in a violation of the SAFDLs.
- c) When COLSS and both CEACs are out of service, additional margin is required in the initial CPC DNBR value to ensure that the limiting AOO will not result in exceeding a SAFDL. The evaluation of the Unit 2, Cycle 3 core design indicates that by maintaining the CPC calculated DNBR above the limits provided by revised Figure 3.2-2A, that the SAFDLs will not be exceeded during the most limiting AOO.

The revised Technical Specifications will not increase the possibility of an accident or malfunctioning of a different type than those previously evaluated in the PVNGS UFSAR. The revisions to the Technical Specifications are necessary to ensure consistency with the results of the Cycle 3 safety analyses results. No hardware changes are required as a result of the changes, therefore, different malfunctions than those previously analyzed will not occur.

Operation of the reactor within the limits provided by the revised figures will ensure that the SAFDLs are not exceeded during the most limiting AOO. The Cycle 3 figures, as revised, are based on the same design criteria as the Cycle 2 Technical Specification figures. Therefore, there will be no reduction in the margin of safety as defined in the bases for any Technical Specification.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed Technical Specification change request does not involve an environmental question because operation of PVNGS Unit 2, in accordance with this change, would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board; or
2. Result in a significant change in effluents or power levels; or
3. Result in matters not previously reviewed in the licensing basis for PVNGS which may have a significant environmental impact.

G. MARKED-UP TECHNICAL SPECIFICATION CHANGE PAGES

Figure 3.2-2 3/4 2-7
Figure 3.2-2A 3/4 2-7a

