10 CFR 50.90

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ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sirs:

Reference: NRC letter dated May 29, 2019, Palo Verde Nuclear Generating Station, Units 1, 2, and 3 Issuance of Amendment No. 209
RE: Adoption of Risk-Informed Completion Times in Technical Specifications [Agency Documents Access and Management System (ADAMS) Accession Number ML19085A525]

Subject: **Palo Verde Nuclear Generating Station Units 1, 2, and 3**
Docket Nos. STN 50-528, 50-529, and 50-530
Renewed Operating License Nos. NPF-41, NPF-51, NPF-74
License Amendment Request (LAR) - Change in Implementation Date for Amendment Number 209

In the referenced letter, the NRC approved License Amendment Number 209 to Renewed Facility Operating License Nos. NPF-41, NPF-51, and NPF-74, for Palo Verde Nuclear Generating Station (PVNGS), Units 1, 2, and 3, respectively. The amendment approved modifications to the Technical Specifications (TS) to permit the use of Risk-Informed Completion Times (RICT) in accordance with Nuclear Energy Institute Topical Report NEI 06-09, Revision 0-A, *Risk-Informed Technical Specification Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines*. In accordance with the referenced letter, the RICT License Amendment is required to be implemented no later than February 23, 2020.

Arizona Public Service Company (APS) is requesting an amendment to extend the aforementioned PVNGS RICT TS implementation date to August 31, 2020. This extension is necessary due to unforeseen circumstances, which are detailed in the enclosure.

APS requests approval of the RICT TS implementation date extension by February 17, 2020.

In accordance with the PVNGS Quality Assurance Program Description, the Plant Review Board reviewed and approved this LAR. By copy of this letter, this LAR is

being forwarded to the Arizona Department of Health Services – Bureau of Radiation Control pursuant to 10 CFR 50.91(b)(1).

No new commitments are being made in this submittal. If you have any questions about this request, please contact Michael D. DiLorenzo, Department Leader, Nuclear Regulatory Affairs, at (623) 393-3495.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 26, 2019
(Date)

Sincerely,

Thomas N. Weber for
Maria L. Lacal

MLL/TNW/NTA

Enclosure: Evaluation of the Proposed Change

cc:

S. A. Morris	NRC Region IV Regional Administrator
S. P. Lingam	NRC NRR Project Manager for PVNGS
C. A. Peabody	NRC Senior Resident Inspector for PVNGS
B. Goretzki	Arizona Department of Health Services – Bureau of Radiation Control

Enclosure

Evaluation of the Proposed Change

1.0 DESCRIPTION

The NRC approved License Amendment (LA) Number (No.) 209 to Renewed Facility Operating License Nos. NPF-41, NPF-51, and NPF-74, for Palo Verde Nuclear Generating Station (PVNGS), Units 1, 2, and 3, respectively (Reference 1). The amendments approved modifications to the Technical Specifications (TS) to permit the use of Risk-Informed Completion Times (RICT) in accordance with Nuclear Energy Institute (NEI) Topical Report NEI 06-09, Revision 0-A, *Risk-informed Technical Specification Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines* (Reference 2). In accordance with the NRC approved Amendment No. 209, the RICT LA is required to be implemented no later than February 23, 2020.

Arizona Public Service Company (APS), is requesting an amendment to extend the aforementioned PVNGS RICT TS implementation date to August 31, 2020. This extension is necessary due to unforeseen circumstances, which are detailed in Section 2.3 of this enclosure. The proposed amendment does not involve a significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

2.0 DETAILED DESCRIPTION

2.1 Background

APS had planned to implement the PVNGS RICT TS by February 23, 2020, in accordance with the NRC approved LA No. 209. However, APS experienced unforeseen circumstances which required additional personnel resources to support normal Probabilistic Risk Assessment (PRA) activities as well as completion of the necessary preparatory items initiated to support implementation of the RICT TS. Specifically, the items that require completion are listed in the License Condition that was issued with the amendment.

2.2 Current Requirement

License Amendment 209 was effective on the date of issuance (May 29, 2019) and required implementation within 270 days of the date of issuance, which would be by February 23, 2020 (Reference 1).

2.3 Reason for the Proposed Change

The unforeseen circumstances below required additional personnel resources that inhibited the implementation of the RICT TS.

- The level of effort to complete implementation items associated with the PRA model quality has been greater than anticipated.

- The methodology used from EPRI report 3002012997, Revision 4, *Pipe Rupture Frequencies for Internal Flooding Risk Assessments*, for addressing maintenance induced flooding was recently questioned by a peer reviewer whether it meets the ASME/ANS PRA Standard RA-Sa-2009 (Reference 3). An alternate methodology proposed by the peer reviewer is being implemented and is much more resource intensive than the EPRI methodology.

- Plant events during the implementation period diverted PRA resources away from completion of the RICT PRA License Condition work including:
  - Evaluation and corrective actions to address an NRC non-cited violation on the Time Critical Actions Program interface with the PRA model (Reference 4)
  - Unit 2 trip on August 16, 2019, risk significance and evaluation of subsequent offsite power supply realignments for house loads
  - Open phase modification risk assessment per NEI 19-02, *Guidance for Assessing Open Phase Condition Implementation Using Risk Insights* (Reference 5)
  - Actions to address an unplanned yellow risk management action level during the 1R21 refueling outage related to a failure to recognize that the Containment Cooling Fans were not available when moving the Reactor Head

- Retirement of a highly experienced senior PRA engineer who was a key member of the RICT implementation team

2.4 Description of the Proposed Change

Based on the information provided in Section 2.3 above, APS proposes to extend the implementation date of the PVNGS RICT TS from February 23, 2020, to August 31, 2020.

3.0 TECHNICAL EVALUATION

APS has been working to complete a PRA model to support modifying the TS to permit the use of RICT in accordance with Topical Report NEI 06-09, Revision 0-A, *Risk-informed Technical Specification Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines*. The revised PRA model will fulfill the license condition APS received with LA 209. Implementation of the revised RICT TS are currently required to be complete on or before February 23, 2020.

As discussed previously, unforeseen circumstances have caused a delay in the implementation process, which includes necessary completion of PRA model, training on the new risk model results, procedure changes impacted by the new risk model, and other administrative requirements. Delays in the implementation process caused by activities listed in Section 2.3 will prevent desired completion by the current February 23, 2020, implementation date.

Based on a review of the status of the remaining preparatory items associated with implementation of RICT TS, the implementation of RICT TS requires an extension of at least 90 days for completion. APS is requesting an extension of slightly over 180 days (August 31, 2020) to allow for additional time that may be needed to address future emergent plant events and questions during the final peer reviews.

The implementation items remaining to be completed include:

- Conduct a focused scope peer review for the following PRA model upgrades:
  - PRA model impact 2017-2021: Closure of Fact and Observation (F&O) AS-03, LOCA modeling success criteria justification
  - PRA model impact 2017-2026: Closure of Internal Flooding F&O 1-2, Human-Induced Flooding (Linked with Impact 2018-2526)
  - PRA model impact 2017-2028: Closure of F&O SHA-E2-01, Updated Seismic Hazard Analysis

- PRA model impact 2017-2029: Closure of F&O SFR-F3-01, Resolve Seismic Fragility of Unaddressed Relays
- PRA model impact 2018-2526: Closure of Internal Flooding F&O IFEV-A7-01, Human-Induced Flooding (Linked with Impact 2017-2026)
- PRA model impact 2018-2531: Closure of F&O SPR-88-01, Post-Seismic Event, Ex-Control Room Operator Actions Alternate Paths
- Modeling of Fire-Induced Anticipated Transient Without Scram

- Conduct an F&O Closure Review per Appendix X to NEI 05-04, *Close Out Facts and Observations (F&Os)*, (Reference 6) to close all open peer review findings

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

APS reviewed the safety evaluation for NEI 06-09-A (Reference 2) and the safety evaluation for the lead plant for risk-informed completion times for insight in preparing this LAR.

Regulatory Guide (RG) 1.174, Revision 3, *An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis*, dated January 2018 (Reference 7), describes an acceptable risk-informed approach for assessing the nature and impact of proposed permanent licensing basis changes by considering engineering issues and applying risk insights. This RG also provides risk acceptance guidelines for evaluating the results of such evaluations.

RG 1.177, Revision 1, *An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications*, dated May 2011 (Reference 8), describes an acceptable risk-informed approach specifically for assessing proposed TS changes. This RG identifies a three-tiered approach for a licensee's evaluation of the risk associated with a proposed TS Completion Time (CT) change.

RG 1.200, Revision 2 (Reference 9), describes an acceptable approach for determining whether the quality of the PRA, in total or the parts that are used to support an application, is sufficient to provide confidence in the results, such that the PRA can be used in regulatory decisionmaking for light-water reactors. RG 1.200 provides guidance for assessing the technical adequacy of a PRA. RG 1.200, Revision 2, endorses, with clarifications and qualifications, the use of the American Society of Mechanical Engineers (ASME)/American Nuclear Society (ANS) Standard, RA-Sa-2009, Addenda to ASME RA-S-2008, *Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications*, (i.e., the ASME PRA standard) (Reference 3).

The extension of the RICT implementation date is an administrative change to allow for more time to finish the PRA License Condition work and does not affect the requirements of the PRA License Condition of LA 209 or of the regulatory items stated above.

4.2 Precedent

There is no precedent directly associated with an extension of an implementation period related to modifying RICT TS in accordance with Topical Report NEI 06-09, Revision 0-A *Risk-informed Technical Specification Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines*.

However, implementation period extensions have been previously approved by the NRC for unrelated license amendments. The following are examples of such amendments:

1. Extension related to an Emergency Plan based on the guidance of NEI 99-01, Revision 6, Arkansas Nuclear One, Units 1 and 2, associated with Amendments 263 and 314 (Reference 10)

2. Extension of NFPA-805 modification due date for Browns Ferry Nuclear Plant, Units 1, 2, and 3, associated with Amendment Nos. 308, 331, and 291 (Reference 11).

4.3 No Significant Hazards Consideration Analysis

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?
Response: No

   The proposed extension of the implementation date of the Risk-Informed Completion Time (RICT) License Amendment (LA) Number (No.) 209 does not involve a significant increase in the probability of an accident previously evaluated because the existing Technical Specification (TS) Conditions, Required Actions and Completion Times (CT) will remain in effect during the extended implementation period.

   The current TSs are effective and acceptable for establishing all actions necessary to mitigate the consequences of an accident previously evaluated and have been previously approved by the NRC. Therefore, the proposed extended RICT TS implementation does not involve a significant increase in the probability or 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 proposed extension of the implementation date of the RICT LA No. 209 does not create the possibility of a new or different kind of accident from any accident previously evaluated because the existing TS Conditions, Required Actions and CTs will be in effect during the extended implementation period. The proposed change does not involve a physical alteration of the plant and does not involve installation of new or different kind of equipment.

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

3. Does the proposed change involve a significant reduction in a margin of safety?
Response: No

   The proposed extension of the implementation date of the RICT LA No. 209 is not a significant reduction in margin of safety since the existing TS Conditions, Required Actions and CTs will remain in effect during the extended implementation period, have an acceptable margin of safety and have been approved by the NRC.

   Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, APS concludes that the implementation date extension presents no significant hazards considerations under the standards set forth in 10 CFR 50.92(c), *Issuance of amendment*, and, accordingly, a finding of *no significant hazards consideration* is justified. The extension of the RICT implementation date is an administrative change to allow for more time to finish the PRA License Condition work and no changes are being made to the technical requirements associated with the PRA License Condition.

4.4 Conclusions

In conclusion, based on the considerations discussed above, (1) there is reasonable assurance that the health and safety of the public will not be endangered by extending the implementation date of LA 209, (2) TS activities will continue to be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

5.0 ENVIRONMENTAL CONSIDERATION

The proposed change would change a requirement with respect to extending the implementation date of the RICT TS for PVNGS, Units 1, 2, and 3. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22, *Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review.* Therefore, pursuant to 10 CFR 51.22, no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

References:

1. NRC letter, *Palo Verde Nuclear Generating Station, Units 1, 2, and 3 – Issuance of Amendment Nos. 209, 209, and 209 RE: Adoption of Risk-Informed Completion Times in Technical Specifications*, dated May 29, 2019 (ADAMS Accession Number ML19085A525)

2. Nuclear Energy Institute (NEI) 06-09, Revision 0 - A, *Risk-Informed Technical Specifications Initiative 4b, Risk-Managed Technical Specifications (RMTS) Guidelines (NEI 06-09-A)*, dated October 12, 2012 (ADAMS Accession Number ML12286A322)

3. American Society of Mechanical Engineers/American Nuclear Society, Addenda to ASME RA-S-2008, ASME/ANS PRA Standard ASME/ANS RA-Sa-2009, *Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications*, dated February 2, 2009

4. Palo Verde Nuclear Generating Station, Units 1, 2, and 3 – Design Bases Assurance (Teams) Inspection Report 05000528/2019011, 05000529/2019011, and 05000530/2019011, dated May 10, 2019, (ADAMS Accession Number ML19130A127)

5. NEI 19-02 Technical Report, (Revision 0), *Guidance for Assessing Open Phase Condition Implementation Using Risk Insights*, dated April, 2019, (ADAMS Accession Number ML19122A321)

6. NEI 05-04/07-12/12-06 Appendix X, *Close Out of Facts and Observations (F&Os)*, dated February 21, 2017 (ADAMS Accession Number ML17086A451)

7. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.174, Revision 2, dated May 2011, and Revision 3 dated January 2018, *An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis,* (ADAMS Accession Numbers ML100910006 and ML17317A256, respectively)

8. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.177, Revision 1, May 2011, An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications, (ADAMS Accession Number ML100910008)

9. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.200, Revision 2, *An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities*, dated March 01, 2009 (ADAMS Accession Number ML090410014)

10. NRC letter, *Arkansas Nuclear One, Units 1 and 2 - Issuance of Amendment Nos. 267 and 317 to Extend Implementation Date for of Amendment Nos. 263 and 314 – Revision to Emergency Action Level Scheme (EPID L-2019-LLA-0192)*, dated October 22, 2019 (ADAMS Accession Number ML19269B672)

11. NRC letter, *Browns Ferry Nuclear Plant, Units 1, 2, and 3 – Issuance of Amendment Nos. 308, 331, and 291 to Extend Implementation Due Date for Modifications 102 and 106 Related to NFPA 805, "Performance-Based Standard for Fire Protection of Light Water Reactor Electric Generating Plants" (EPID L-2019-LLA-0140)*, dated August 13, 2019 (ADAMS Accession Number ML19198A001)