



102-08416-CDH/KJG
March 31, 2022

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U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: **Palo Verde Nuclear Generating Station
Units 1, 2, and 3 and Independent Spent Fuel Storage Installation
Docket Nos. STN 50-528/529/530 and 72-44
Renewed Operating License Nos. NPF-41, NPF-51, NPF-74
Request for Exemption from NAC-MAGNASTOR Certificate of Compliance
72-1031 - Cask Lid Design Requirements**

In accordance with the provisions of 10 CFR 72.7, *Specific Exemptions*, Arizona Public Service Company (APS) requests an exemption from the provisions of 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 10 CFR 72.214 for the Palo Verde Nuclear Generating Station (PVNGS) Independent Spent Fuel Storage Installation. Specifically, an exemption is requested for the cask lid concrete design requirements in the NAC-MAGNASTOR Certificate of Compliance (CoC).

The requested exemption would allow APS to deviate from the NAC-MAGNASTOR CoC Appendix A, *Technical Specifications and Design Features for the MAGNASTOR System*, Section 4.2, *Codes and Standards*, which states that the American Concrete Institute Specifications ACI-349 and ACI-318 govern the CONCRETE CASK design and construction, respectively. The requested exemption recognizes the concrete used in the lids of the CONCRETE CASK design provides solely a radiation shielding function, which does not need to meet each of the testing provisions of the American Concrete Institute specifications. The requested exemption would apply to NAC-MAGNASTOR dry casks, described in the Enclosure, that are or will be used by APS at PVNGS under the CoC Amendment 7 listed in 10 CFR 72.214 (72-1031).

This exemption is needed because during a Nuclear Regulatory Commission (NRC) inspection, a Severity Level IV Non-Cited Violation (i.e., a condition having low safety significance) was identified regarding NAC's use of the 10 CFR 72.48 process. Additional information for this exemption request is provided in the Enclosure to this letter.

APS has notified NAC International, Inc., the certificate holder for the MAGNASTOR system, of this exemption request. NAC International, Inc. has submitted a supplement to an existing amendment request, which will address this non-compliance issue. Based upon the anticipated review schedule, the 10 CFR 72.214 rulemaking required to implement the proposed NAC-MAGNASTOR CoC amendment would not be completed in time for APS to load spent fuel in May 2022 as planned for Unit 1 and later in the Summer of 2022 for Unit 3, that will preserve full core offload capability following the Fall 2022 refueling outage.

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APS requests approval of this exemption request by May 20, 2022, to have it approved in time for the scheduled NAC-MAGNASTOR loading campaign that starts May 22, 2022. This exemption request was discussed with the NRC staff in a teleconference on Friday, March 18, 2022.

No new commitments are being made in this submittal. If you have any questions about this request, please contact Matthew S. Cox, Licensing Section Leader, at (623) 393-5753.

Sincerely,

Harbor, Cary
(Z16762)

 Digitally signed by Harbor, Cary
(Z16762)
Date: 2022.03.31 08:33:30 -07'00'

CDH/KJG/mg

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cc: S. A. Morris NRC Region IV Regional Administrator
S. P. Lingam NRC NRR Project Manager for PVNGS
B. H. White NRC NMSS Project Manager
L. N. Merker NRC Senior Resident Inspector for PVNGS
B. D. Goretzki Arizona Department of Health Services – Bureau of Radiation Control

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Certificate of Compliance 72-1031 - Cask Lid Design
Requirements**

**Request for Exemption from NAC-MAGNASTOR Certificate of Compliance
72-1031 - Cask Lid Design Requirements**

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1.0 Description

In accordance with the provisions of 10 CFR 72.7, *Specific Exemptions*, Arizona Public Service Company (APS) requests an exemption from the provisions of 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 10 CFR 72.214 for the Palo Verde Nuclear Generating Station (PVNGS) Independent Spent Fuel Storage Installation (ISFSI). Specifically, an exemption is requested for the cask lid concrete design requirements in the NAC-MAGNASTOR Certificate of Compliance (CoC).

The requested exemption would allow APS to deviate from the NAC-MAGNASTOR CoC (Reference 1) Appendix A, *Technical Specifications and Design Features for the MAGNASTOR System*, Section 4.2, *Codes and Standards*, which states that the American Concrete Institute Specifications ACI-349 and ACI-318 govern the CONCRETE CASK design and construction, respectively. The requested exemption recognizes the concrete used in the lids of the CONCRETE CASK design provides solely a radiation shielding function, which does not need to meet each of the testing provisions of the American Concrete Institute (ACI) specifications. The requested exemption would apply to NAC-MAGNASTOR dry casks, described in this Enclosure, that are or will be used by APS at PVNGS under the CoC Amendment 7 listed in 10 CFR 72.214 (72-1031).

This exemption is needed because during a Nuclear Regulatory Commission (NRC) inspection, a Severity Level IV Non-Cited Violation (i.e., a condition having low safety significance) was identified regarding NAC's use of the 10 CFR 72.48 process. NAC International, Inc. has submitted supplements to an existing amendment request, which addresses this non-compliance issue.

Based upon the anticipated review schedule, the 10 CFR 72.214 rulemaking required to implement the proposed NAC-MAGNASTOR CoC amendment would not be completed in time for APS to load spent fuel in May 2022 as planned for Unit 1 and later in the Summer of 2022 for Unit 3, that will preserve full core offload capability following the Fall 2022 refueling outage. This exemption request was discussed with the NRC staff in a teleconference on Friday, March 18, 2022.

2.0 Proposed Exemption

In accordance with 10 CFR 72.7, *Specific Exemptions*, APS requests an exemption from the provisions of 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 10 CFR 72.214 for the PVNGS Independent Spent Fuel Storage Installation. Specifically, an exemption is requested for the cask lid concrete design requirements in the NAC-MAGNASTOR CoC (Reference 1) due to a non-compliance issue with Appendix A, Section 4.2 of CoC No. 1031, Amendment 7.

- 10 CFR 72.212(a)(2), states the "general license is limited to storage of spent fuel in casks approved under the provisions of this part."
- 10 CFR 72.212(b)(3), states the general licensee must "[e]nsure that each cask used by the general licensee conforms to the terms, conditions, and specifications of a CoC or an amended CoC listed in § 72.214."
- 72.212(b)(5)(i), states "the cask, once loaded with spent fuel or once the changes authorized by an amended CoC have been applied, will conform to the terms, conditions, and specifications of a CoC or an amended CoC listed in § 72.214"
- The relevant portion of 10 CFR 72.212(b)(11) states that "[t]he licensee shall comply with the terms, conditions, and specifications of the CoC ... " and

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- 10 CFR 72.214, which includes *Certificate Number: 1031, Amendment 7, Effective Date: August 21, 2017, as corrected (ADAMS Accession No. ML19045A346) for Model Number: MAGNASTOR.*

The list of affected Vertical Concrete Casks (VCCs) are listed in Table 1 below. These systems are currently either loaded and in storage operations on the ISFSI pad or on-site and otherwise available for loading. This exemption request would allow the continued use of the systems currently in non-compliance for the term specified in the CoC. This exemption request concludes, along with supporting technical documentation from NAC, that the affected systems and components still maintain their ability to perform their safety functions.

Table 1 lists PVNGS MAGNASTOR systems and their status as it relates to the NAC NRC violation associated with removal of ACI requirements from the concrete utilized in the VCC lids.

Table 1: PVNGS MAGNASTOR System Status As of March 15, 2022

VCC Number	Loading Status	Compliance with ACI
153 through 163	Loaded with fuel	Not in compliance
164	Loaded with fuel	In compliance ¹
165	Not loaded	Not in compliance
166	Not loaded	Not in compliance
167	Loaded with fuel	In compliance ¹
168	Not loaded	Not in compliance
169	Not loaded	Not in compliance
170	Not loaded	Not in compliance
171	Not loaded	Not in compliance
172	Not loaded	Not in compliance
173	Not loaded	Not in compliance
174	Not loaded	Not in compliance
175	Not loaded	Not in compliance

¹A revised Certificate of Conformance was received for these VCCs detailing their compliance with ACI requirements.

The requested exemption would apply to MAGNASTOR casks that will be used by APS at PVNGS under the CoC amendments listed in 10 CFR 72.214 (including those currently listed in Table 1 as "In compliance" [VCCs 164 and 167]).

3.0 Background

APS is the operator of PVNGS Units 1, 2, and 3, and currently stores spent fuel in dry cask storage at an ISFSI under the general license provisions of 10 CFR 72. Most of the dry cask spent fuel storage systems currently used by APS are of the NAC-UMS Universal Storage System, certificate number 72-1015, as listed in 10 CFR 72.214, which are unaffected by this exemption request. However, as documented in Table 1, APS has transitioned to the MAGNASTOR model under CoC Amendments listed in 10 CFR 72.214, which are the subject of this exemption request.

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APS currently has 23 MAGNASTOR systems either in storage operations or available for loading. Table 1 lists each of the affected VCCs. The VCC body complies with ACI requirements and is outside scope of this request. MAGNASTOR CoC (Reference 1), Appendix A, Section 4.2, states that the American Concrete Institute Specifications ACI-349 and ACI-318 govern the CONCRETE CASK design and construction, respectively. APS is requesting NRC approval of an exemption request because this affects previously fabricated systems that are either currently loaded and in storage operations or on-site and otherwise available for loading.

4.0 Technical Analysis

The proposed exemption relates to ACI specification compliance with regards to concrete used in the MAGNASTOR VCC lids. Specifically, testing for slump, air entrainment, temperature, and compressive strength was not performed as required by the ACI specifications. As documented in NAC's Submission of an Amendment Request for MAGNASTOR Cask System Amendment No. 12 and supplements (ADAMS Accession Nos. ML22024A374, ML22077A769, ML22077A770, and ML22077A771), the sole licensing basis design function of the concrete in the VCC lid to reduce skyshine radiation continues to be met. This is demonstrated by the verification of concrete density in the VCC lid during fabrication in accordance with the Final Safety Analysis Report (FSAR) requirements. In addition, the Surveillance Requirement for MAGNASTOR CoC Technical Specification 3.3.1, *CONCRETE CASK Maximum Surface Dose Rate*, requires dose measurements to be taken prior to moving a loaded system to the storage pad to ensure the VCC lid performs adequately with respect to its licensing basis radiation shielding function.

NAC's Supplement to NAC's Amendment Request for the NAC International MAGNASTOR Cask System Amendment No. 12 documents that concrete shrinkage that could realistically occur would represent an increase in dose rates at the top of the VCC lid that is within the statistical uncertainty of the original shielding evaluation. Note that PVNGS uses the Concrete Cask Design 5 (CC5) cask vintage with Combustion Engineering (CE) 16x16 fuel, and, as discussed in the MAGNASTOR FSAR (Sections 5.1.2.1 and 5.1.2.2) (Reference 2) and evidenced by the results of the CC5 shielding evaluation, CC5 is bounded by the original shielding evaluation.

As such, the ability of the VCCs to perform their intended safety functions is unaffected, and there is not a significant safety hazard associated with not adhering to ACI requirements as described in the MAGNASTOR CoC for the concrete in the VCC lids.

5.0 Regulatory Safety Analysis

5.1 Applicable Regulatory Requirements/Criteria

10 CFR 72.7, states the following:

"The Commission may, upon application by any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest."

The proposed exemption is authorized by law since regulation 10 CFR 72.7 authorizes the NRC to grant exemptions from the requirements of the Part 72 regulations.

The proposed exemption will not endanger life or property, or the common defense and security as described further in this section. The proposed exemption is in the public interest. The proposed exemption would allow APS to load spent fuel on schedule, maintain full core

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offload capability and would not affect power plant operations or refueling outages for the three PVNGS units.

10 CFR 72.212(a)(2) states the following:

“This general license is limited to storage of spent fuel in casks approved under the provisions of this part.”

10 CFR 72.212(b)(3) states the following:

“The general licensee must: Ensure that each cask used by the general licensee conforms to the terms, conditions, and specifications of a CoC or an amended CoC listed in § 72.214.”

10 CFR 72.212(b)(5)(i) states the following:

“The general licensee must: Perform written evaluations, before use and before applying the changes authorized by an amended CoC to a cask loaded under the initial CoC or an earlier amended CoC, which establish that: The cask, once loaded with spent fuel or once the changes authorized by an amended CoC have been applied, will conform to the terms, conditions, and specifications of a CoC or an amended CoC listed in § 72.214”

10 CFR 72.212(b)(11) states the following:

“The general licensee must: Maintain a copy of the CoC and, for those casks to which the licensee has applied the changes of an amended CoC, the amended CoC, and the documents referenced in such Certificates, for each cask model used for storage of spent fuel, until use of the cask model is discontinued. The licensee shall comply with the terms, conditions, and specifications of the CoC and, for those casks to which the licensee has applied the changes of an amended CoC, the terms, conditions, and specifications of the amended CoC, including but not limited to, the requirements of any AMP put into effect as a condition of the NRC approval of a CoC renewal application in accordance with § 72.240.”

10 CFR 72.214 States the following:

“The following casks are approved for storage of spent fuel under the conditions specified in their Certificates of Compliance.

Certificate Number: 1031.

Initial Certificate Effective Date: February 4, 2009, superseded by Initial Certificate, Revision 1, on February 1, 2016.

Initial Certificate, Revision 1, Effective Date: February 1, 2016. ...

Amendment Number 7 Effective Date: August 21, 2017, as corrected (ADAMS Accession No. ML19045A346).

SAR Submitted by: NAC International, Inc.

SAR Title: Final Safety Analysis Report for the MAGNASTOR System.

Docket Number: 72-1031.

Certificate Expiration Date: February 4, 2029.

Model Number: MAGNASTOR.”

Each of these 72.212 and 72.214 regulations require an ISFSI general licensee to comply with the conditions in the dry cask CoC. An exemption is requested for the cask lid concrete design

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requirements in the NAC-MAGNASTOR CoC due to a non-compliance issue with Appendix A, Section 4.2 of CoC No. 1031, Amendment 7 (Reference 1). The proposed exemption relates to ACI specification compliance with regards to concrete used in the MAGNASTOR VCC lids. Specifically, testing for slump, air entrainment, temperature, and compressive strength was not performed as required by the ACI specifications.

As documented in NAC's Submission of an Amendment Request for MAGNASTOR Cask System Amendment No. 12 and supplements (ADAMS Accession Nos. ML22024A374, ML22077A769, ML22077A770, and ML22077A771), the sole licensing basis design function of the concrete in the VCC lid to reduce skyshine radiation continues to be met. This is demonstrated by the verification of concrete density in the VCC lid during fabrication in accordance with FSAR requirements.

The proposed exemption request is limited in scope in that it only relates to non-compliance with certain concrete testing requirements specified in the ACI Specifications, as invoked by the MAGNASTOR CoC. The proposed exemption request involves no physical change to the VCC lid design, and no change to the VCC lid materials. The *Technical Analysis* (Section 4.0 of this enclosure) provides the basis for the conclusion that there is reasonable assurance that safety margin exists for the affected VCCs, listed in Table 1, for their initial 20-year service lifetime. Thus, the requested exemption is authorized by law since it does not endanger life, property, or common defense and security and is otherwise in the public interest as described below.

5.2 Authorized by Law

APS is requesting an exemption from the requirements of 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 10 CFR 72.214. 10 CFR 72.7 gives the NRC the authority to grant exemptions from the requirements of 10 CFR Part 72 provided they do not endanger life or property or the common defense and security and are otherwise in the public interest. This exemption request documents that these criteria are met. The exemption is authorized by law.

5.3 Does Not Endanger Life, Property or Common Defense and Security

As discussed in Sections 2.0 and 4.0 of the enclosure, the affected VCCs listed in Table 1 can perform the intended safety function. Even though the concrete in the VCC lids was not tested in accordance with ACI Specifications, sufficient evidence exists to reasonably conclude that they still effectively reduce skyshine radiation.

5.4 Otherwise In The Public Interest – Alternatives

APS has evaluated replacement alternatives to the proposed exemption request. However, none of the alternatives provide the safety assurances and reduced radiological risk provided by the exemption request for VCCs that have been loaded. To bring the affected loaded VCCs into compliance with the MAGNASTOR CoC, Amendment 7, would involve removing the non-compliant VCC lid from the VCC body, replacing it with a VCC lid that is in compliance, and returning the system into storage operations. An alternative to destructively test some lids to qualify others is not a solution for the population of casks.

The necessary equipment, personnel, facilities, time, and radiological exposure required to perform these actions is not in the interest of the public. VCC lids that are not yet loaded could be replaced but this would be at a significant monetary cost and operational impact to APS without providing improvement to the VCC lid's ability to perform their safety functions. Due to the timeline of fabrication, the operational impacts of replacing non-loaded VCC lids

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on-site include but are not limited to a reduction in the number of open cells in the spent fuel pools below prudent operating reserve, rescheduling of currently planned loading campaigns, support of additional procurement, and disposal of current VCC lids.

Approval of this exemption request will not impact functionality of the VCCs on-site, as the exemption applies to examination requirements and does not seek to alter the VCC design. The impacts of this alternative would result in both real and potential impacts. The real impact for replacing all affected VCC lids, both loaded and those not yet loaded, is not negligible when considering raw material production, VCC lid fabrication, and VCC lid transportation to site. Occupational doses for removing affected VCC lids and subsequent replacement with new VCC lids would not be insignificant. In addition, this evolution results in additional risks of both off-normal events and design basis accidents, which could involve a radiological release to the environment.

5.5 Conclusion

Based on the above discussion, the exemption request is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest as the exemption provides the least risk, least dose, least radioactive waste and least cost. A campaign to discard and replace the affected VCC lids would create operational challenges and risks associated with additional operational requirements, occupational doses, and generation of significant quantities of radioactive wastes.

6.0 Environmental Considerations

6.1 Background

MAGNASTOR storage casks are designed to mitigate the effects of design basis accidents that could occur during storage. Design basis accidents account for human-induced events and the most severe natural phenomena reported for the site and surrounding area. Postulated accidents analyzed for an ISFSI include tornado winds and tornado-generated missiles, a design basis earthquake, a design basis flood, an accidental cask drop, lightning effects, fire, explosions, and other incidents (MAGNASTOR FSAR Chapter 12)(Reference 2).

Considering the specific design requirements for each accident condition, the design of the cask would prevent loss of confinement, shielding, and criticality control. Without the loss of confinement, shielding, or criticality control functions, the risk to public health and safety is not compromised. The NRC staff performed a detailed safety evaluation of the CoC amendment used by APS to load VCCs (i.e., Amendment 7) and found that an acceptable safety margin was maintained, that the proposed changes provided reasonable assurance that the spent fuel could be stored safely, met the acceptance criteria specified in 10 CFR Part 72, and that there continued to be reasonable assurance that public health and safety will be adequately protected.

6.2 No Significant Hazards Consideration

In order to support the assertion that this exemption request meets the definition of a regulatory action eligible for a categorical exclusion or otherwise does not require an environmental review, APS is providing the following *No Significant Hazards Consideration* (NSHC). The NSHC is being performed in accordance with 10 CFR 50.92, insofar as 10 CFR 72 does not establish separate criteria. APS has evaluated the proposed exemption request in accordance with the standards in 10 CFR 50.92 and has determined that the requested exemption presents no significant hazards considerations:

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

Response: No.

The probability (frequency of occurrence) of a Updated Final Safety Analysis Report (UFSAR) or Cask FSAR evaluated accident occurring is not affected by the requested exemption, because APS continues to comply with the design basis criteria established for VCCs. There is no change in consequences of postulated accidents because enclosed supporting technical justifications demonstrate that the VCCs will continue to perform their intended safety function. Thus, the results of accident evaluations are unchanged. Therefore, the proposed changes do 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 exemption request does not create the possibility of a new operating mode or accident scenario, nor does the exemption request rely on new equipment or postulate a new equipment failure mode. In order for an activity to create the possibility for an accident of a different type, the activity would have to introduce a new material, a new man-machine interface, a new operational process, or other significant change that would initiate a new type of failure or cause a previously described accident to propagate differently. As previously described, the proposed activity is purely an ACI Specification concrete testing compliance issue in nature and involves no physical change to the VCC lid design, and no changes to the VCC lid materials or the loading operations. Therefore, the proposed activity does not create a possibility for an accident of a different type and does not result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety previously evaluated in the UFSAR or Cask FSAR.

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

Response: No.

As discussed in the Technical Analysis, herein, sufficient evidence exists to reasonably conclude that the VCC lids continue to meet their intended safety function. Even though the concrete in the VCC lids was not tested in accordance with the ACI specifications, sufficient evidence exists to demonstrate that they still effectively reduce skyshine radiation in accordance with their design function. Therefore, the proposed exemption request does not involve a significant reduction in a margin of safety.

Based on the considerations above, APS has determined that storage of spent fuel in MAGNASTOR VCCs in accordance with the exemption request, does not involve a significant hazards consideration as defined in 10 CFR 50.92(c), in that it does 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.

6.3 Environmental Impact of the Proposed Action

Based on the Technical Analysis, herein, MAGNASTOR VCCs will continue to perform their intended safety functions. Thus, there is no environmental impact of the proposed action. The proposed action would restore the affected VCCs listed in Table 1 to an approved status,

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allowing them to remain in storage operations or be placed into service for the term specified in the CoC.

The exemption request meets the categorical exclusion of 10 CFR 51.22(c)(25) as a regulatory action eligible for a categorical exclusion or otherwise does not require an environmental review, because there is:

- (i) no significant hazards consideration;
See No Significant Hazards Consideration Section 6.2.
- (ii) no significant change in the types or significant increase in the amounts of any effluents that may be released offsite;
No significant changes of effluents or types of effluents are requested to be released under this exemption request.
- (iii) no significant increase in individual or cumulative public or occupational radiation exposure;
No significant increases in radiation to individuals or the public are requested under this exemption request.
- (iv) no significant construction impact;
No construction is being requested or impacted under this exemption request.
- (v) no significant increase in the potential for or consequences from radiological accidents;
No significant increase in the potential for or consequences of a radiological accident is being requested in this exemption request.
- (vi) the requirements from which an exemption is sought involve: ...
(C) inspection or surveillance requirements; ...
The request seeks an exemption from CoC (Reference 1), Appendix A, Section 4.2, which invokes ACI Specifications regarding concrete inspection or surveillance testing requirements for the Concrete Cask lid. Absent this exemption, destructive inspection or surveillance testing of existing cask lids would be required to confirm compliance with the ACI Specifications.

Further, the proposed exemption does not require technical changes to the APS 10 CFR 72.212 Evaluation Reports and applicable safety analyses remain bounding. Once approved, the APS MAGNASTOR 10 CFR 72.212 Evaluation Report will be administratively updated to reflect the issuance of the exemption request in Table 2.5-1, *10 CFR Part 72 Approved Exemptions*.

6.4 Environmental Impact of Alternatives to the Proposed Action

APS has evaluated replacement alternatives to the proposed exemption request and is described in Section 5.4 of this Enclosure.

7.0 Conclusion

APS has reviewed the requirements in 10 CFR 72 and determined that an exemption to certain requirements in 72.212 and 72.214 are necessary. This exemption request would allow the continued use of the systems currently in non-compliance for the term specified in the CoC. This exemption request concludes, along with supporting technical documentation from NAC, that the affected systems and components maintain the ability to perform their

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safety functions. The exemption provided herein meets the requirements of 10 CFR 72.7 and meets the requirements for categorical exclusion set forth in 10 CFR 51.22(c)(25).

8.0 References

1. Certificate of Compliance for the NAC-MAGNASTOR System, Docket No. 72-1031, Amendment No. 7, dated August 21, 2017.
2. NAC-MAGNASTOR System Final Safety Analysis Report, Revision 11, Docket No. 72-1031, dated January 2021.