

**NUCLEAR REGULATORY COMMISSION**

**10 CFR Part 72**

**[NRC-2016-0137]**

**RIN 3150-AJ77**

**List of Approved Spent Fuel Storage Casks:**

**NAC International**

**MAGNASTOR®**

**Cask System; Certificate of Compliance No. 1031, Amendment No. 6**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Direct final rule.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is amending its spent fuel storage regulations by revising the NAC International (NAC), MAGNASTOR® Cask System listing within the “List of approved spent fuel storage casks” to include Amendment No. 6 to Certificate of Compliance (CoC) No. 1031. Amendment No. 6 revises NAC-MAGNASTOR technical specifications (TSs) to align with the NAC Multi-Purpose Canister (MPC) and NAC Universal MPC System (UMS) TSs. The CoC No. 1031 TSs require that a program be established and maintained for loading, unloading, and preparing fuel for storage without any indication of duration for the program. Amendment No. 6 limits maintenance of this program until all spent fuel is removed from the spent fuel pool and transport operations are completed. Related training and radiation protection program requirements are modified accordingly. Additionally, Amendment No. 6 incorporates the change to Limiting Condition for Operation (LCO) 3.1.1 previously approved by the NRC in CoC No. 1031 Amendment No. 4.

**DATES:** The direct final rule is effective December 21, 2016, unless significant adverse comments are received by November 7, 2016. If the direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date. Comments received on this direct final rule will also be considered to be comments on a companion proposed rule published in the Proposed Rules section of this issue of the *Federal Register*.

**ADDRESSES:** You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2016-0137. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.
- **E-mail comments to:** [Rulemaking.Comments@nrc.gov](mailto:Rulemaking.Comments@nrc.gov). If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.
- **Fax comments to:** Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.
- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.
- **Hand deliver comments to:** 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. (Eastern Time) Federal workdays; telephone: 301-415-1677.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

**FOR FURTHER INFORMATION CONTACT:** Keith McDaniel, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-5252 or e-mail: [Keith.McDaniel@nrc.gov](mailto:Keith.McDaniel@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

- I. Obtaining Information and Submitting Comments
- II. Procedural Background
- III. Background
- IV. Discussion of Changes
- V. Voluntary Consensus Standards
- VI. Agreement State Compatibility
- VII. Plain Writing
- VIII. Environmental Assessment and Finding of No Significant Environmental Impact
- IX. Paperwork Reduction Act Statement
- X. Regulatory Flexibility Certification
- XI. Regulatory Analysis
- XII. Backfitting and Issue Finality
- XIII. Congressional Review Act
- XIV. Availability of Documents

## I. Obtaining Information and Submitting Comments

### A. Obtaining Information

Please refer to Docket ID NRC-2016-0137 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2016-0137.
- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then select "[Begin Web-based ADAMS Search.](#)" For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.
- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

### B. Submitting Comments

Please include Docket ID NRC-2016-0137 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment

submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## **II. Procedural Background**

This rule is limited to the changes contained in Amendment No. 6 to CoC No. 1031 and does not include other aspects of the NAC MAGNASTOR® Cask System design. The NRC is using the “direct final rule procedure” to issue this amendment because it represents a limited and routine change to an existing CoC that is expected to be noncontroversial. Adequate protection of public health and safety continues to be ensured. The amendment to the rule will become effective on December 21, 2016. However, if the NRC receives significant adverse comments on this direct final rule by November 7, 2016, then the NRC will publish a document that withdraws this action and will subsequently address the comments received in a final rule as a response to the companion proposed rule published in the Proposed Rule section of this issue of the Federal Register.

Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule's underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC staff to reevaluate (or reconsider) its position or conduct additional analysis;

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC staff.

2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or addition.

3) The comment causes the NRC staff to make a change (other than editorial) to the rule, CoC, or TSs.

For detailed instructions on filing comments, please see the companion proposed rule published in the Proposed Rule section of this issue of the *Federal Register*.

### III. Background

Section 218(a) of the Nuclear Waste Policy Act (NWPA) of 1982, as amended, requires that “the Secretary [of the Department of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission.” Section 133 of the NWPA states, in part, that “[the Commission] shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 219(a) [sic: 218(a)] for use at the site of any civilian nuclear power reactor.”

To implement this mandate, the Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule which added a new subpart K in part 72 of title 10 of the *Code of Federal Regulations* (10 CFR) entitled, “General License for Storage of Spent Fuel at Power Reactor Sites” (55 FR 29181; July 18, 1990). This rule also established a new subpart L in 10 CFR part 72 entitled, “Approval of Spent Fuel Storage Casks,” which contains procedures and criteria for obtaining NRC approval of spent fuel storage cask designs. The NRC subsequently issued a final rule on November 21, 2008 (73 FR 70587), that approved the NAC MAGNASTOR® Cask System design and added it to the list of NRC-approved cask designs in 10 CFR 72.214 as CoC No. 1031.

#### **IV. Discussion of Changes**

By letter dated December 11, 2015, NAC submitted a request to the NRC to amend CoC No. 1031. As documented in the Preliminary Safety Evaluation Report (PSER) and described further below, the NRC staff performed a detailed safety evaluation of the proposed CoC Amendment 6 request. This direct final rule revises the NAC MAGNASTOR® Cask System listing in 10 CFR 72.214 by adding Amendment No. 6 to CoC No. 1031. The amendment consists of the changes described below, as set forth in the revised CoC and TSs. The revised TSs are identified in the PSER.

Amendment No. 6 revises NAC-MAGNASTOR TSs to align with the NAC-MPC and NAC-UMS TSs. The CoC No. 1031 TSs currently require that a program be established and maintained for loading, unloading, and preparing fuel for storage without any indication of duration for the program. Amendment No. 6 clarifies the applicability of TS requirements depending on the status of operations, limiting maintenance of certain programs until all spent fuel is removed from the spent fuel pool and transport operations are completed. Additionally, Amendment No. 6 incorporates the change to LCO 3.1.1 that was previously reviewed and approved by the NRC in Amendment No. 4. The NRC staff determined that Amendment No. 6 does not include changes to cask design requirements and does not reflect a change in design or fabrication of the cask. The NRC staff found that the TS and operating limit changes do not impact the casks ability to continue to safely store spent fuel in accordance with part 72 requirements.

The amended NAC MAGNASTOR® Cask System design, when used under the conditions specified in the CoC, the TSs, and the NRC's regulations, will meet the requirements of 10 CFR part 72; therefore, adequate protection of public health and safety will continue to be ensured. When this direct final rule becomes effective, persons who hold a general license



under 10 CFR 72.210 may load spent nuclear fuel into the NAC MAGNASTOR® Cask System casks that meet the criteria of Amendment No. 6 to CoC No. 1031 under 10 CFR 72.212.

## **V. Voluntary Consensus Standards**

The National Technology Transfer and Advancement Act of 1995 (Pub. L. 104-113) requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this direct final rule, the NRC will revise the NAC MAGNASTOR® Cask System design listed in 10 CFR 72.214, “List of approved spent fuel storage casks.” This action does not constitute the establishment of a standard that contains generally applicable requirements.

## **VI. Agreement State Compatibility**

Under the “Policy Statement on Adequacy and Compatibility of Agreement State Programs” approved by the Commission on June 30, 1997, and published in the *Federal Register* on September 3, 1997 (62 FR 46517), this rule is classified as Compatibility Category “NRC.” Compatibility is not required for Category “NRC” regulations. The NRC program elements in this category are those that relate directly to areas of regulation reserved to the NRC by the Atomic Energy Act of 1954, as amended, or the provisions of 10 CFR. Although an Agreement State may not adopt program elements reserved to the NRC, it may

wish to inform its licensees of certain requirements via a mechanism that is consistent with the particular State's administrative procedure laws, but does not confer regulatory authority on the State.

## **VII. Plain Writing**

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31883).

## **VIII. Environmental Assessment and Finding of No Significant Environmental Impact**

### **A. The Action**

The action is to amend 10 CFR 72.214 to revise the NAC MAGNASTOR® Cask System listing within the "List of approved spent fuel storage casks" to include Amendment No. 6 to CoC No. 1031. Under the National Environmental Policy Act of 1969, as amended, and the NRC's regulations in subpart A of 10 CFR part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," the NRC has determined that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The NRC has made a finding of no significant impact on the basis of this environmental assessment.

## B. The Need for the Action

This direct final rule amends the CoC for the NAC MAGNASTOR® Cask System design within the list of approved spent fuel storage casks that power reactor licensees can use to store spent fuel at reactor sites under a general license. Specifically, Amendment No. 6 revises NAC-MAGNASTOR TSs to align with the NAC-MPC and NAC-UMS TSs. The CoC No. 1031 TSs require that a program be established and maintained for loading, unloading, and preparing fuel for storage without any indication of duration for the program. Amendment No. 6 limits maintenance of this program until all spent fuel is removed from the spent fuel pool and transport operations are completed. Related training and radiation protection program requirements are modified accordingly. Additionally, Amendment No. 6 incorporates the change to LCO 3.1.1 previously approved by the NRC in CoC No. 1031 Amendment No. 4.

## C. Environmental Impacts of the Action

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent fuel under a general license in cask designs approved by the NRC. The potential environmental impact of using NRC-approved storage casks was initially analyzed in the environmental assessment for the 1990 final rule. The environmental assessment for this Amendment No. 6 tiers off of the environmental assessment for the July 18, 1990, final rule. Tiering on past environmental assessments is a standard process under the National Environmental Policy Act.

The NAC MAGNASTOR® Cask System is 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 Independent Spent Fuel Storage

Installation, the type of facility at which a holder of a power reactor operating license would store spent fuel in casks in accordance with 10 CFR part 72, 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.

Considering the specific design requirements for each accident condition, the design of the cask would prevent loss of confinement, shielding, and criticality control. If there is no loss of confinement, shielding, or criticality control, the environmental impacts would be insignificant. This amendment does not reflect a change in design or fabrication of the cask. There are no changes to cask design requirements in the proposed CoC amendment. In addition, because there are no design or significant process changes, any resulting occupational exposure or offsite dose rates from the implementation of Amendment No. 6 would remain well within the 10 CFR part 20 limits. Therefore, the proposed CoC changes will not result in any radiological or non-radiological environmental impacts that differ significantly from the environmental impacts evaluated in the environmental assessment supporting the July 18, 1990, final rule. There will be no significant change in the types or revisions in the amounts of any effluent released, no significant increase in the individual or cumulative radiation exposure and no significant increase in the potential for or consequences from radiological accidents. The NRC staff documented its safety findings in a PSER.

#### D. Alternative to the Action

The alternative to this action is to deny approval of Amendment No. 6 and end the direct final rule. Consequently, any 10 CFR part 72 general licensee that seeks to load spent nuclear fuel into the NAC MAGNASTOR® Cask System in accordance with the changes described in proposed Amendment No. 6 would have to request an exemption from the requirements of

10 CFR 72.212 and 72.214. Under this alternative, an interested licensee would have to prepare, and the NRC would have to review, a separate exemption request, thereby increasing the administrative burden upon the NRC and the costs to each licensee. Therefore, the environmental impacts would be the same or less than the action.

#### E. Alternative Use of Resources

Approval of Amendment No. 6 to CoC No. 1031 would result in no irreversible commitments of resources.

#### F. Agencies and Persons Contacted

No agencies or persons outside the NRC were contacted in connection with the preparation of this environmental assessment.

#### G. Finding of No Significant Impact

The environmental impacts of the action have been reviewed under the requirements in 10 CFR part 51. Based on the foregoing environmental assessment, the NRC concludes that this direct final rule entitled, "List of Approved Spent Fuel Storage Casks: NAC MAGNASTOR® Cask System, Amendment No. 6" will not have a significant effect on the human environment. Therefore, the NRC has determined that an environmental impact statement is not necessary for this direct final rule.

## **IX. Paperwork Reduction Act Statement**

This rule does not contain any information collection requirements, and is therefore not subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

## **Public Protection Notification**

The NRC may not conduct or sponsor, and a person is not required to respond to a request for information or an information collection requirement unless the requesting document displays a currently valid Office of Management and Budget control number.

## **X. Regulatory Flexibility Certification**

Under the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the NRC certifies that this rule will not, if issued, have a significant economic impact on a substantial number of small entities. This direct final rule affects only nuclear power plant licensees and NAC. These entities do not fall within the scope of the definition of small entities set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

## **XI. Regulatory Analysis**

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent nuclear fuel under a general license in cask designs approved by the NRC. Any nuclear power reactor licensee can use NRC-approved cask designs to store

spent nuclear fuel if it notifies the NRC in advance, the spent fuel is stored under the conditions specified in the cask's CoC, and the conditions of the general license are met. A list of NRC-approved cask designs is contained in 10 CFR 72.214. On November 21, 2008 (73 FR 70587), the NRC issued an amendment to 10 CFR part 72 that approved the NAC MAGNASTOR® Cask System design by adding it to the list of NRC-approved cask designs in 10 CFR 72.214.

By letter dated December 11, 2015, NAC submitted an application to amend the NAC MAGNASTOR® Cask System as described in Section IV, "Discussion of Changes," of this document.

The alternative to this action is to withhold approval of Amendment No. 6 and to require any 10 CFR part 72 general licensee seeking to load spent nuclear fuel into the NAC MAGNASTOR® Cask System under the changes described in Amendment No. 6 to request an exemption from the requirements of 10 CFR 72.212 and 72.214. Under this alternative, each interested 10 CFR part 72 licensee would have to prepare, and the NRC would have to review, a separate exemption request, thereby increasing the administrative burden upon the NRC and the costs to each licensee.

Approval of the direct final rule is consistent with previous NRC actions. Further, as documented in the PSER and the environmental assessment, the direct final rule will have no adverse effect on public health and safety or the environment. This direct final rule has no significant identifiable impact or benefit on other Government agencies. Based on this regulatory analysis, the NRC concludes that the requirements of the direct final rule are commensurate with the NRC's responsibilities for public health and safety and the common defense and security. No other available alternative is believed to be as satisfactory, and therefore, this action is recommended.

## **XII. Backfitting and Issue Finality**

The NRC has determined that the backfit rule (10 CFR 72.62) does not apply to this direct final rule. Therefore, a backfit analysis is not required. This direct final rule revises CoC No. 1031 for the NAC MAGNASTOR® Cask System, as currently listed in 10 CFR 72.214, “List of approved spent fuel storage casks.” Amendment No. 6 revises NAC-MAGNASTOR TSs to align with the NAC-MPC and NAC-UMS TSs. The CoC No. 1031 TSs require that a program be established and maintained for loading, unloading, and preparing fuel for storage without any indication of duration for the program. Amendment No. 6 limits maintenance of this program until all spent fuel is removed from the spent fuel pool and transport operations are completed. Related training and radiation protection program requirements are modified accordingly. Additionally, Amendment No. 6 incorporates the change to LCO 3.1.1 previously approved by the NRC in CoC No. 1031 Amendment No. 4.

Amendment No. 6 to CoC No. 1031 for the NAC MAGNASTOR® Cask System was initiated by NAC and was not submitted in response to new NRC requirements, or an NRC request for amendment. Amendment No. 6 applies only to new casks fabricated and used under Amendment No. 6. These changes do not affect existing users of the NAC MAGNASTOR® Cask System, and Amendment Nos. 1-3, Revisions 1, as well as Revision 1 of the Initial Certificate, and Amendments Nos. 4-5 continue to be effective for existing users. While current CoC users may comply with the new requirements in Amendment No. 6, this would be a voluntary decision on the part of current users. For these reasons, Amendment No. 6 to CoC No. 1031 does not constitute backfitting under 10 CFR 72.62, 10 CFR 50.109(a)(1), or otherwise represent an inconsistency with the issue finality provisions applicable to combined licenses in 10 CFR part 52. Accordingly, no backfit analysis or additional documentation



addressing the issue finality criteria in 10 CFR part 52 has been prepared by the NRC staff.

### **XIII. Congressional Review Act**

The Office of Management and Budget has not found this to be a major rule as defined in the Congressional Review Act.

### **XIV. Availability of Documents**

The documents identified in the following table are available to interested persons as indicated.

<b>DOCUMENT</b>	<b>ADAMS ACCESSION NUMBER</b>
NAC License Amendment Request, Letter Dated December 11, 2015	ML15349A941
Proposed CoC No. 1031, Amendment No. 6	ML16119A101
Proposed CoC No. 1031, Amendment No. 6 – Technical Specifications, Appendix A	ML16119A110
Proposed CoC No. 1031, Amendment No. 6 – Technical Specifications, Appendix B	ML16119A118
CoC No. 1031, Amendment No. 6 – Preliminary Safety Evaluation Report	ML16119A123

The NRC may post materials related to this document, including public comments, on the Federal rulemaking Web site at <http://www.regulations.gov> under Docket ID NRC-2016-0137. The Federal rulemaking Web site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: 1) Navigate to the docket folder (NRC-2016-0137); 2) Click the “Sign up for E-mail Alerts” link; and 3) Enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly).

### **List of Subjects in 10 CFR Part 72**

Administrative practice and procedure, Criminal penalties, Hazardous waste, Indians, Intergovernmental relations, Manpower training programs, Nuclear energy, Nuclear materials, Occupational safety and health, Penalties, Radiation protection, Reporting and recordkeeping requirements, Security measures, Spent fuel, Whistleblowing.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Nuclear Waste Policy Act of 1982, as amended; and 5 U.S.C. 552 and 553; the NRC is adopting the following amendments to 10 CFR part 72:

**PART 72 -- LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND REACTOR-RELATED GREATER THAN CLASS C WASTE**

1. The authority citation for part 72 continues to read as follows:

**Authority:** Atomic Energy Act of 1954, secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 223, 234, 274 (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2210e, 2232, 2233, 2234, 2236, 2237, 2238, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); National Environmental Policy Act of 1969 (42 U.S.C. 4332); Nuclear Waste Policy Act of 1982, secs. 117(a), 132, 133, 134, 135, 137, 141, 145(g), 148, 218(a) (42 U.S.C. 10137(a), 10152, 10153, 10154, 10155, 10157, 10161, 10165(g), 10168, 10198(a)); 44 U.S.C. 3504 note.

2. In § 72.214, Certificate of Compliance 1031 is revised to read as follows:

**§ 72.214 List of approved spent fuel storage casks.**

\* \* \* \* \*

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 1 Effective Date: August 30, 2010, superseded by Amendment Number 1, Revision 1, on February 1, 2016.

Amendment Number 1, Revision 1, Effective Date: February 1, 2016.

Amendment Number 2 Effective Date: January 30, 2012, superseded by Amendment Number 2, Revision 1, on February 1, 2016.

Amendment Number 2, Revision 1, Effective Date: February 1, 2016.

Amendment Number 3 Effective Date: July 25, 2013, superseded by Amendment Number 3, Revision 1, on February 1, 2016.

Amendment Number 3, Revision 1, Effective Date: February 1, 2016.

Amendment Number 4 Effective Date: April 14, 2015.

Amendment Number 5 Effective Date: June 29, 2015.

Amendment Number 6 Effective Date: December 21, 2016.

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®.

\* \* \* \* \*

Dated at Rockville, Maryland, this 23rd day of September, 2016.

For the Nuclear Regulatory Commission.

**/RA/**

Glenn M. Tracy,  
Acting Executive Director for Operations.