



**NUCLEAR REGULATORY COMMISSION**

**10 CFR Part 72**

**[NRC-2016-0200]**

**RIN 3150-AJ86**

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

**AREVA Inc., Standardized NUHOMS<sup>®</sup> Cask System,**

**Certificate of Compliance No. 1004, Amendment No. 14, and Revision 1 of the**

**Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13**

**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 AREVA Inc. (AREVA), Standardized NUHOMS<sup>®</sup> Cask System listing within the “List of approved spent fuel storage casks” to add Amendment No. 14, and Revision 1 to the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to Certificate of Compliance (CoC) No. 1004. Amendment No. 14 will revise multiple items in the technical specifications (TSs) for dry shielded canister (DSC) models listed under CoC No. 1004; most of these revisions involve changes to the authorized contents. The revisions to the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 will remove language in the TSs that requires a transfer cask (TC) containing a DSC to be returned to the spent fuel pool following a drop of over 15 inches.

**DATES:** The direct final rule is effective **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, unless significant adverse comments are received by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. If the direct final rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*.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-2016-0200. 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:** Edward Lohr, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-0253; e-mail: Edward.Lohr@nrc.gov.

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## I. Obtaining Information and Submitting Comments

### A. Obtaining Information

Please refer to Docket ID NRC-2016-0200 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-2016-0200.

- **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-2016-0200 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. Rulemaking Procedure

This rule is limited to the changes contained in Amendment No. 14 and the revisions to the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004 and does not include other aspects of the AREVA Standardized NUHOMS<sup>®</sup> Cask System design. The NRC is using the “direct final rule procedure” to issue the amendment and revisions because they represent limited and routine changes to an existing CoC that are expected to be noncontroversial. Adequate protection of public health and safety continues to be ensured. The amendment and revisions to the rule will become effective on **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. This direct final rule has an effective date of 90 days from publication in lieu of the historical 75 days because it has two rulemaking actions that have to be coordinated after the public comment period is closed and before the final rule takes effect. However, if the NRC receives significant adverse comments on this direct final rule by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, 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 Rules section of this issue of the *Federal Register*. Absent significant modifications to the proposed amendment and 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 Rules 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. On December 22, 1994, the NRC issued a final rule approving the AREVA Standardized NUHOMS® Cask System design (59 FR 65898) and CoC No. 1004 was added to the list of NRC-approved cask designs in 10 CFR 72.214.

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

On November 4, 2014, AREVA submitted an application for renewal of the Standardized NUHOMS® storage system, which is currently under review by the NRC staff. Because AREVA's renewal application was submitted more than 30 days in advance of the certificate's expiration date of January 23, 2015, and the NRC staff has yet to make a final determination on the renewal application, pursuant to the regulation in 10 CFR 72.240(b), the existing certificates have not expired.

By letter dated April 16, 2015, as supplemented on November 11, 2015, and March 14, 2016, AREVA submitted a request to the NRC to amend CoC No. 1004 by adding Amendment No. 14. Also, by letter dated August 24, 2015, as supplemented on February 9, 2016, AREVA submitted a request to the NRC to add Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004. These two requests are included in this rulemaking.

As documented in the Preliminary Safety Evaluation Report for AREVA Amendment No. 14 to CoC No. 1004 and Preliminary Safety Evaluation Report (PSER) for AREVA Revisions of Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004 and described in this section, the NRC staff performed a detailed safety evaluation of the proposed CoC amendment and revisions. This direct final rule revises the AREVA Standardized NUHOMS® Cask System listing in 10 CFR 72.214 by adding Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004. The term "Amendment 0" used in the supporting documents for this direct final rulemaking and the term "Initial Certificate" used in 10 CFR 72.214 describes the same document. Initial Certificate is the correct term and will be used henceforth when discussion involves this document. The revised TSs are identified in the PSERs.

*Changes to the CoC No. 1004 and TSs under Amendment No. 14*

Amendment No. 14 to CoC No. 1004 includes the following provisions:

- Improvements to the fuel qualification tables for the boiling water reactor (BWR) and pressurized water reactor DSCs to allow for the calculation of cooling times for different uranium loading;
- Inclusion of new heat load zoning configurations for the 61BTH, 32PTH1 and 69BTH DSCs;
- Authorization of storage of up to 61 damaged BWR fuel assemblies in the 61BTH DSC;
- Authorization of storage of up to 16 failed fuel cans in the 32PTH1 DSC;
- Expansion of the 37PTH criticality analysis to include poison rod assemblies;
- Evaluation of the horizontal storage module (HSM) model HSM-H for shielding impact of reduced density concrete and gaps during installation;
- Clarification and revision of various terms and definitions in the TSs;
- Authorization of acceptance testing for neutron absorber content to be performed by either neutron transmission or by B-10 volume density measurement;
- Removal of language in the TSs that required a TC containing a DSC be returned to the spent fuel pool following a drop of over 15 inches, and instead permit the general licensee to determine the best available option for inspection of the TC/DSC by either returning it to the spent fuel pool or an alternate means;
- Revision of the minimum soluble boron concentration of 2800 ppm for Type A2 poison for Westinghouse 17x17 fuel design only;
- Update the existing Fuel Qualification Table for the 32PTH1 DSC with a heat load of 1.2 kW/FA; and

- Allowance for an alternative loading configuration of 16 damaged fuel assemblies in the 32PTH1 DSC.

These changes do not result in any changes to the design of the major components of the Standardized NUHOMS® Cask System. Most of the changes are related to the authorized contents. Similar changes have been reviewed and approved by the NRC for CoC No. 1030 for the NUHOMS® HD System.

*Changes to the CoC and TSs under Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13*

Revisions to the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 of the CoC No. 1004 include:

- Removal of language in the TSs that required a TC containing a DSC be returned to the spent fuel pool following a drop of over 15 inches, and instead permit the general licensee to determine the best available option for inspection of the TC/DSC by either returning it to the spent fuel pool or an alternate means; and
- Clarifying language in the TSs that requires a transfer cask be returned to the spent fuel pool.

As documented in the PSERs, the NRC staff performed a detailed safety evaluation of the proposed CoC amendment and revisions. There are no significant changes to cask design requirements in the CoC amendment or revisions. The staff evaluated the specific design requirements for each accident condition and finds that the design of the cask will prevent loss of containment, shielding, and criticality control. Therefore, the environmental impacts of these actions would be insignificant. This amendment and revisions to existing amendments do not reflect significant changes in design or fabrication of the cask. In addition, any resulting

occupational exposure or offsite dose rates from the implementation of Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 will remain well within the 10 CFR part 20 limits. Therefore, the CoC changes will not result in radiological or non-radiological environmental impacts that differ significantly from the environmental impacts evaluated in the environmental assessment supporting the December 22, 1994, final rule. There will be no significant change in the types or significant 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 consequences from radiological accidents.

This direct final rule revises the AREVA Standardized NUHOMS<sup>®</sup> Cask System listing in 10 CFR 72.214 by adding Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004. The changes, 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 AREVA Standardized NUHOMS<sup>®</sup> Cask Systems that meet the criteria of Amendment No. 14 to CoC No. 1004 under 10 CFR 72.212. Persons who hold a general license under 10 CFR 72.210 have 180 days after the effective date of Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to perform a 10 CFR 72.212 evaluation and to implement the changes authorized by the revisions.

## **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 AREVA Standardized NUHOMS<sup>®</sup> 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 AREVA Standardized NUHOMS<sup>®</sup> Cask System listing within the “List of approved spent fuel storage casks” to add Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004. 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 CoC No. 1004 for the AREVA Standardized NUHOMS<sup>®</sup> 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. 14 revises TSs to allow for additional authorized contents be stored in the cask. Similar changes were previously reviewed and approved by the NRC for CoC No. 1030 for the NUHOMS<sup>®</sup> HD System. Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 of CoC No. 1004 clarifies language in the TSs that requires a

transfer cask be returned to the spent fuel pool, by permitting the general licensee to determine the best available option for inspection of the TC/DSC by either returning it to the spent fuel pool or inspection by alternate means.

### 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 Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 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 AREVA Standardized NUHOMS<sup>®</sup> 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 (ISFSI), 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. The amendment and revisions to existing amendments do not reflect a significant change in

design or fabrication of the cask. There are no significant changes to cask design requirements in the proposed CoC amendment and revisions to existing amendments. In addition, because there are no significant design or process changes, any resulting occupational exposure or offsite dose rates from the implementation of Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 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 significantly differ 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 significant 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 staff documented its safety findings in the PSERs.

#### D. Alternative to the Action

The alternative to this action is to deny approval of Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13, and end the direct final rule. Consequently, any 10 CFR part 72 general licensee that seeks to load spent nuclear fuel into the AREVA Standardized NUHOMS<sup>®</sup> Cask System in accordance with the changes described in Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 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. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004 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: AREVA Inc., Standardized NUHOMS® Cask System, Certificate of Compliance No. 1004, Amendment No. 14, and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13," 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 final rule does not contain any new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing collections of information were approved by the Office of Management and Budget (OMB), approval number 3150-0132.

## Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB 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 AREVA. 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 December 22, 1994 (59 FR 65898), the NRC issued an amendment to 10 CFR part 72 that approved the AREVA Standardized NUHOMS® Cask System design by adding it to the list of NRC-approved cask designs in 10 CFR 72.214.

By letter dated April 16, 2015, as supplemented on November 11, 2015, and March 14, 2016, AREVA submitted a request to the NRC to amend CoC No. 1004 by adding Amendment No. 14. Also, by letter dated August 24, 2015, as supplemented on February 9, 2016, AREVA submitted a request to the NRC to amend CoC No. 1004 by adding Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13. These requests are described in Section IV, "Discussion of Changes," of this document.

The alternative to this action is to withhold approval of Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13. Withholding approval of these actions would require any 10 CFR part 72 general licensee seeking to load spent nuclear fuel into the AREVA Standardized NUHOMS<sup>®</sup> Cask System under the changes described in Amendment No. 14 and Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 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 be required to prepare a separate exemption request and the NRC would need to review separate exemption requests, which would increase the administrative burden on 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 PSERs 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**

### *Changes to CoC No. 1004 and TSs under Amendment No. 14*

The NRC has determined that the backfit rule (10 CFR 72.62) does not apply to this direct final rule and therefore, a backfit analysis is not required. First, this direct final rule revises CoC No. 1004 for the AREVA Standardized NUHOMS® Cask System, as currently listed in 10 CFR 72.214, “List of approved spent fuel storage casks.” Amendment No. 14 revises multiple items in the TSs for the DSC models listed under CoC No. 1004; these include changes to the load zoning configurations for spent fuel assemblies, improvements to the spent fuel qualification tables for select DSCs, authorizing changes in the spent fuel parameters for storage, and evaluating the shielding impacts of gaps in the HSMs, among others. Amendment No. 14 to CoC No. 1004 for the AREVA Standardized NUHOMS® Cask System was initiated by AREVA. It was not submitted in response to the imposition of new NRC requirements or an NRC request for an amendment. Amendment No. 14 applies only to new casks that are fabricated and used under Amendment No. 14. The proposed changes to the CoC and the TSs will not affect existing users of the AREVA Standardized NUHOMS® Cask System. While current CoC users may comply with the new requirements in Amendment No. 14, this would be a voluntary decision on the part of current users. For these reasons, Amendment No. 14 to CoC No. 1004 does not constitute backfitting under 10 CFR 72.62 or 10 CFR 50.109(a)(1).

The current holders of combined licenses issued under 10 CFR part 52, which also by law have general ISFSI licenses under 10 CFR part 72, do not use the Standardized NUHOMS® Cask System, and therefore are unaffected by Amendment No. 14. Therefore, this rulemaking does not involve any issue finality considerations for those licensees. Amendment No. 14 does not affect entities with regulatory approvals issued under 10 CFR part 52.

Therefore, the portion of this rulemaking concerning Amendment No. 14 does not involve any other issue finality concerns.

*Changes to the CoC No. 1004 and TSs under Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13*

AREVA requested Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 for CoC No. 1004 for the Standardized NUHOMS® Cask System, as currently listed in 10 CFR 72.214, “List of Approved Spent Fuel Storage Casks.” The revisions to the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 will remove language in TS 1.2.10 that requires a TC containing a DSC be returned to the spent fuel pool following a drop of over 15 inches. The revised TS.1.210 will permit the general licensee to determine the best available option for inspection of the TC/DSC by either returning it to the spent fuel pool or an alternate means. The general licensee will inspect and evaluate the DSC/TC for damage before further use. This inspection requirement provides the option to inspect the DSC in a spent fuel pool or another proper location.

Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004 provides a voluntary alternative to the current requirement that a loaded DSC must be returned to the spent fuel pool following a drop exceeding 15 inches. Although the TSs for AREVA casks manufactured under existing CoC No. 1004 are being revised by this final rule, the staff finds the backfitting rule does not apply to AREVA’s request because AREVA is the cask system vendor and the backfitting rule at 10 CFR 72.62 applies to general licensees.

AREVA, however, requested that the changes in Revision 1 be applied to the existing casks manufactured under the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13. For this reason, the NRC staff considered what effect revising the CoCs and TSs will have on general licensees currently using the casks and whether the changes

constitute backfitting or a violation of issue finality under 10 CFR part 52. AREVA provided casks to general licensees at numerous reactor facilities under the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004. Under 10 CFR 72.62, general licensees are entities that are protected from backfitting, absent the NRC staff's determination that the protection of occupational or public health and safety warrants the backfit. General licensees are required by 10 CFR 72.212(b)(3), to ensure that each cask conforms to the terms, conditions, and specifications of a CoC, and that each cask is safely used at its site.

The general licensees affected by the revisions to CoC No. 1004 voluntarily committed in writing to implement the revised TS changes at their ISFSIs. The revised TSs provide that in the event a DSC is dropped from greater than 15 inches, the general licensee may choose to return it to the spent fuel pool for inspection, or in the alternative, inspect the canister by other means. In either case, the revised TS 1.2.10 requires inspection and evaluation of the DSC and TC for damage before further use.

The new TSs specifically provide a general licensee with an alternative to the current requirement. The option to use a new voluntary alternative method does not constitute a required change under the backfit rule and therefore does not constitute backfitting under 10 CFR 72.62. For these reasons discussed, no backfit analysis has been prepared by the NRC staff. The two current holders of combined licenses, who also hold a general ISFSI license under 10 CFR part 72, do not use the Standardized NUHOMS® Cask System. Accordingly, there are no issue finality considerations with respect to Revision 1 to the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13. Revision 1 does not affect entities with regulatory approvals issued under 10 CFR part 52. Therefore, the portion of this rulemaking concerning Revision 1 does not involve any other issue finality concerns.

In order to provide the general licensees adequate time to evaluate and implement

modifications to the Standardized NUHOMS<sup>®</sup> Cask System required by the revised CoC, a new condition is added to CoC No. 1004. The condition provides general licensees 180 days from the effective date of Revision 1 of the Initial Certificate, Amendment Nos. 1 through 11, and Amendment No. 13 to CoC No. 1004 to implement the changes authorized by the revision. The new condition also provides general licensees 180 days to perform the evaluation required by 10 CFR 72.212(b)(5)(i-iii).

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

The Office of Management and Budget has not found this to be a 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>
AREVA Application for Renewal of Standardized NUHOMS <sup>®</sup> Storage System, letter dated November 4, 2014	ML14309A341 (Package)
AREVA Request to Add Amendment No. 14 to CoC No. 1004, letter dated April 16, 2015	ML15114A056
Summary of June 10, 2015, Public Meeting with AREVA to Discuss Amendment No. 14 to CoC No. 1004	ML15176A344 (Package)
NRC Request for Additional Information Related to AREVA Amendment No. 14 to CoC No. 1004, letter dated August 31, 2015	ML15245A064

DOCUMENT	ADAMS ACCESSION NUMBER
AREVA Response to NRC Request for Additional Information Related to Amendment No. 14 to CoC No. 1004, letter dated November 11, 2015	ML15331A355 (Package)
NRC Request for Additional Information Related to AREVA Amendment No. 14 to CoC No. 1004, letter dated February 17, 2016	ML16049A559
AREVA Response to NRC Request for Additional Information Related to Amendment No. 14 to CoC No. 1004, letter dated March 14, 2016	ML16076A231
AREVA Amendment No. 14 to CoC No. 1004	ML16246A173
Technical Specifications for AREVA Amendment No. 14 to CoC No. 1004	ML16246A170
Preliminary Safety Evaluation Report for AREVA Amendment No. 14 to CoC No. 1004	ML16246A169
Final Safety Evaluation Report for CoC No. 1030	ML14288A485
AREVA Requested Revisions of Amendment Nos. 0–11, and Amendment No. 13 to CoC No. 1004, letter dated August 24, 2015*	ML15239A718 (Package)
NRC Request for Additional Information Related to AREVA Revisions of Amendment Nos. 0–11, and Amendment No. 13 to CoC No. 1004, letter dated January 19, 2016*	ML16019A301 (Package)
AREVA Response to NRC Request for Additional Information Related to Revisions of Amendment Nos. 0–11, and Amendment No. 13 to CoC No. 1004, letter dated February 9, 2016*	ML16054A214 (Package)
AREVA Revisions of Amendment Nos. 0–11, and Amendment No. 13 to CoC No. 1004 (including technical specifications)*	ML16183A005 (Package)
Supporting Documentation Related to Backfit from General Licensees Associated with AREVA Request to Revise Amendment Nos. 0–11, and Amendment No. 13 to CoC No. 1004*	ML16054A226 (Package)
Preliminary Safety Evaluation Report for AREVA Revisions of Amendment Nos. 0–11, and Amendment No. 13 to CoC No. 1004*	ML16183A022

\* The term “Amendment 0” used in the supporting documents for this direct final rulemaking and the term “Initial Certificate” used in 10 CFR 72.214 describes the same document. Initial

Certificate is the correct term and will be used henceforth when discussion involves this document.

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-2016-0200. 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-2016-0200); 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 1004 is revised to read as follows:

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

\* \* \* \* \*

Certificate Number: 1004.

Initial Certificate Effective Date: January 23, 1995, superseded by Initial Certificate, Revision 1, on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Initial Certificate, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 1 Effective Date: April 27, 2000, superseded by Amendment Number 1, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 1, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 2 Effective Date: September 5, 2000, superseded by Amendment Number 2, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 2, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 3 Effective Date: September 12, 2001, superseded by Amendment Number 3, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 3, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 4 Effective Date: February 12, 2002, superseded by Amendment Number 4, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 4, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 5 Effective Date: January 7, 2004, superseded by Amendment Number 5, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 5, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 6 Effective Date: December 22, 2003, superseded by Amendment Number 6, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 6, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 7 Effective Date: March 2, 2004, superseded by Amendment Number 7, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 7, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 8 Effective Date: December 5, 2005, superseded by Amendment Number 8, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 8, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 9 Effective Date: April 17, 2007, superseded by Amendment Number 9, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 9, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 10 Effective Date: August 24, 2009, superseded by Amendment Number 10, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 10, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 11 Effective Date: January 7, 2014, superseded by Amendment Number 11, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 11, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Amendment Number 12 Effective Date: Amendment not issued by the NRC.

Amendment Number 13 Effective Date: May 24, 2014, superseded by Amendment Number 13, Revision 1 on **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL***

**REGISTER].**

Amendment Number 13, Revision 1, Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*].**

Amendment Number 14 Effective Date: **[INSERT DATE 90 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*].**

SAR Submitted by: Transnuclear, Inc.

SAR Title: Final Safety Analysis Report for the Standardized NUHOMS<sup>®</sup> Horizontal Modular Storage System for Irradiated Nuclear Fuel.

Docket Number: 72–1004.

Certificate Expiration Date: January 23, 2015 (under timely renewal pursuant to 10 CFR 72.240(b)).

Model Number: NUHOMS<sup>®</sup>–24P, –24PHB, –24PTH, –32PT, –32PTH1, –37PTH, –52B, –61BT, –61BTH, and –69BTH.

\* \* \* \* \*

Dated at Rockville, Maryland, this 19th day of December, 2016.

For the Nuclear Regulatory Commission.

Victor M. McCree,  
Executive Director for Operations.

[FR Doc. 2016-31990 Filed: 1/24/2017 8:45 am; Publication Date: 1/25/2017]