

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AI51

[NRC-2008-0568]

List of Approved Spent Fuel Storage Casks: MAGNASTOR Addition

AGENCY: Nuclear Regulatory Commission.

ACTION: Direct final rule.

SUMMARY: The U. S. Nuclear Regulatory Commission (NRC) is amending its regulations to add the NAC International Inc. (NAC) MAGNASTOR cask system to the “List of Approved Spent Fuel Storage Casks.” This direct final rule allows the holders of power reactor operating licenses to store spent fuel in this approved cask system under a general license.

DATES: The final rule is effective (**insert date 75 days after publication in the Federal Register**), unless significant adverse comments are received by (**insert date 30 days after publication in the Federal Register**). 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. If the rule is withdrawn, timely notice will be published in the *Federal Register*.

ADDRESSES: You can access publicly available documents related to this document using the following methods:

Federal e-Rulemaking Portal: Go to <http://www.regulations.gov> and search for documents filed under Docket ID [NRC-2008-0568]. Address questions about NRC dockets to Carol Gallagher 301-415-5905; e-mail Carol.Gallagher@nrc.gov.

NRC's Public Document Room (PDR): The public may examine and have copied for a fee publicly available documents at the NRC's PDR, Public File Area O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland.

NRC's Agencywide Documents Access and Management System (ADAMS): Publicly available documents created or received at the NRC are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this page, the public can gain entry into ADAMS, which provides text and image files of NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the NRC's PDR Reference staff at 1-800-397-4209, 301-415-4737 or by e-mail to pdr.resource@nrc.gov. An electronic copy of the proposed Certificate of Compliance (CoC), technical specifications (TS), and preliminary safety evaluation report (SER) can be found under ADAMS Package Number ML082420063.

CoC No. 1031, the TS, the preliminary SER, and the environmental assessment are available for inspection at the NRC PDR, 11555 Rockville Pike, Rockville, MD. Single copies of these documents may be obtained from Jayne M. McCausland, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6219, e-mail Jayne.McCausland@nrc.gov.

FOR FURTHER INFORMATION CONTACT: Jayne M. McCausland, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6219, e-mail Jayne.McCausland@nrc.gov.

SUPPLEMENTARY INFORMATION:

Background

Section 218(a) of the Nuclear Waste Policy Act of 1982, as amended (NWPA), requires that “[t]he Secretary [of the U.S. Department of Energy (DOE)] 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 “[t]he Commission shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 218(a) for use at the site of any civilian nuclear power reactor.”

To implement this mandate, the NRC approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule in 10 CFR Part 72, which added a new Subpart K within 10 CFR Part 72, 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 within 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.

Discussion

This rule will add the NAC MAGNASTOR cask system to the list of approved spent fuel storage casks in 10 CFR 72.214. Following the procedures specified in 10 CFR 72.230 of subpart L, NAC submitted an application for NRC approval, together with the Safety Analysis Report (SAR) entitled, "Final Safety Analysis Report for the MAGNASTOR System." The NRC evaluated the NAC submittal and issued a preliminary SER and a proposed CoC for the MAGNASTOR System.

The MAGNASTOR System is a vertical, canister-based, dry cask storage system designed for interim storage of up to 37 pressurized water reactor (PWR) spent fuel assemblies or 87 boiling water reactor (BWR) spent fuel assemblies. The MAGNASTOR System consists of a transportable storage canister (TSC) with welded closure, a concrete cask to contain the canister during the storage period, and a transfer cask to contain the TSC during loading, transfer, and unloading operations. The spent fuel assemblies are stored in the TSC. In the storage configuration, the TSC is placed in the central cavity of the concrete cask. The concrete cask provides structural protection, radiation shielding, and internal airflow paths that remove the decay heat from the TSC contents by natural air circulation. The other principal component of the MAGNASTOR System is the transfer cask. The transfer cask provides radiation shielding and structural protection for the TSC and its spent fuel contents during canister loading and preparation activities, and during transfer of the TSC to, or from, the concrete cask.

The NRC finds that the MAGNASTOR System, as designed and when fabricated and used under the conditions specified in its CoC, meets the requirements of 10 CFR Part 72. Thus, use of the MAGNASTOR System, as approved by the NRC, will provide adequate

protection of public health and safety. With this final rule, the NRC is approving the use of the MAGNASTOR System under the general license in 10 CFR Part 72, Subpart K, by holders of power reactor operating licenses under 10 CFR Part 50. Simultaneously, the NRC is issuing a final SER and CoC that will be effective on **[insert date the rule is effective]**. Single copies of the CoC and SER are available for public inspection and/or copying for a fee at the NRC Public Document Room, Public File Area O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, MD.

This direct final rule amends 10 CFR 72.214 by adding CoC No. 1031 to the list of approved spent fuel storage casks.

The MAGNASTOR System, when used under the conditions specified in CoC No. 1031, the TS, and NRC regulations, will meet the requirements of Part 72; thus, adequate protection of public health and safety will continue to be ensured.

Discussion of Amendments by Section

§ 72.214 List of approved spent fuel storage casks.

CoC No. 1031 is added to the list of approved spent fuel storage casks.

Procedural Background

The NRC is using the “direct final rule procedure” to add CoC No. 1031 to the list of approved storage casks because the NAC MAGNASTOR cask system is considered to be similar to other previously approved storage casks and, therefore, is expected to be noncontroversial. Adequate protection of public health and safety continues to be ensured.

This rule will become effective on **(insert 75 days after publication in the Federal Register)**.

However, if the NRC receives significant adverse comments by **(insert 30 days after 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 elsewhere in 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 TS.

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 is adding the NAC MAGNASTOR cask system to the list of NRC-approved cask systems for spent fuel storage in 10 CFR 72.214. This action does not constitute the establishment of a standard that contains generally applicable requirements.

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 (AEA), or the provisions of Title 10 of the Code of Federal Regulations. Although an Agreement State may not adopt program elements reserved to 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.

Plain Language

The Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31883), directed that the Government's documents be in clear and accessible language. The NRC requests comments on this direct final rule specifically with respect to the clarity and effectiveness of the language used. Comments should be sent to the address listed under the heading **ADDRESSES**, above.

Finding of No Significant Environmental Impact: Availability

Under the National Environmental Policy Act of 1969, as amended, and the NRC regulations in Subpart A of 10 CFR Part 51, 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 prepared an environmental assessment and, on the basis of this environmental assessment, has made a finding of no significant impact. The rule will add the CoC for the MAGNASTOR system, CoC No. 1031, 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.

The MAGNASTOR system is a vertical, canister-based, dry cask storage system designed for interim storage of up to 37 PWR spent fuel assemblies or 87 BWR spent fuel assemblies. The MAGNASTOR system consists of a TSC with welded closure, a concrete cask to contain the canister during the storage period, and a transfer cask to contain the canister during loading, transfer, and unloading operations. In the storage configuration, the TSC is placed in the central cavity of the concrete cask. The concrete cask provides structural

protection, radiation shielding, and internal airflow paths that remove the decay heat from the TSC contents by natural air circulation. The other principal component of the MAGNASTOR system is the transfer cask. The transfer cask provides radiation shielding and structural protection for the TSC and its spent fuel contents during canister loading and preparation activities, and during transfer of the TSC to, or from, the concrete cask. The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, Public File Area O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, MD. Single copies of the environmental assessment and finding of no significant impact are available from Jayne M. McCausland, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6219, e-mail Jayne.McCausland@nrc.gov.

Paperwork Reduction Act Statement

This direct final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, Approval Number 3150-0132.

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 OMB control number.

Regulatory Analysis

On July 18, 1990 (55 FR 29181), the Commission issued an amendment to 10 CFR Part 72. The amendment provided for the storage of spent nuclear fuel in cask systems with designs approved by the NRC under a general license. Any nuclear power reactor licensee can use cask systems with designs approved by the NRC 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. In that rule, four spent fuel storage casks were approved for use at reactor sites and were listed in 10 CFR 72.214. That rule envisioned that storage casks certified in the future could be routinely added to the listing in 10 CFR 72.214 through the rulemaking process. Procedures and criteria for obtaining NRC approval of new spent fuel storage cask designs were provided in 10 CFR Part 72, Subpart L.

The alternative to this action is to withhold approval of this new design and issue a site-specific license to each utility that proposes to use the casks. This alternative would cost both the NRC and utilities more time and money for each site-specific license. Conducting site-specific reviews would ignore the procedures and criteria currently in place for the addition of new cask designs that can be used under a general license, and would be in conflict with NWPAs direction to the Commission to approve technologies for the use of spent fuel storage at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site reviews. This alternative also would tend to exclude new vendors from the business market without cause and would arbitrarily limit the choice of cask designs available to power reactor licensees. This final rule will eliminate the above problems and is consistent with previous Commission actions. Further, the rule will have no adverse effect on public health and safety.

The benefit of this rule to nuclear power reactor licensees is to make available a greater choice of spent fuel storage cask designs that can be used under a 10 CFR Part 50 general license. The new cask vendors with casks to be listed in 10 CFR 72.214 benefit by having to obtain NRC certificates only once for a design that can then be used by more than one power reactor licensee. The NRC also benefits because it will need to certify a cask design only once for use by multiple licensees. Casks approved through rulemaking are to be suitable for use under a range of environmental conditions sufficiently broad to encompass multiple nuclear power plants in the United States without the need for further site-specific approval by NRC. Vendors with cask designs already listed may be adversely impacted because power reactor licensees may choose a newly listed design over an existing one. However, the NRC is required by its regulations and NWPAs to certify and list approved casks. This rule has no significant identifiable impact or benefit on other Government agencies.

Based on the above discussion of the benefits and impacts of the alternatives, the NRC concludes that the requirements of the final rule are commensurate with the Commission's responsibilities for public health and safety and the common defense and security. No other available alternative is believed to be as satisfactory, and thus, this action is recommended.

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).

Backfit Analysis

The NRC has determined that the backfit rule (10 CFR 72.62) does not apply to this direct final rule because this rule does not involve any provisions that would impose backfits as defined in 10 CFR Chapter I. Therefore, a backfit analysis is not required.

Congressional Review Act

Under the Congressional Review Act of 1996, the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory Affairs, Office of Management and Budget.

List of Subjects in 10 CFR Part 72

Administrative practice and procedure, Hazardous waste, Nuclear materials, Occupational safety and health, 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: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95-601, sec. 10, 92 Stat. 2951 as amended by Pub. L. 102-486, sec. 7902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note); sec. 651(e), Pub. L. 109-58, 119 Stat. 806-10 (42 U.S.C. 2014, 2021, 2021b, 2111).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330-232, 1330-236 (42 U.S.C. 10162(b), 10168(c),(d)). Section 72.46 also issued under sec. 189, 68 Stat. 955 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203, 101 Stat. 1330-235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2244 (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

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

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1031.

Initial Certificate Effective Date: **(insert effective date of final rule)**.

SAR Submitted by: NAC International, Inc.

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

Docket Number: 72-1031.

Certificate Expiration Date: **[insert 20 years from the effective date of the final rule]**.

Model Number: MAGNASTOR.

Dated at Rockville, Maryland, this 31st day of October, 2008.

For the Nuclear Regulatory Commission.

/RA/

R. W. Borchardt,
Executive Director for Operations.

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

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1031.

Initial Certificate Effective Date: **(insert effective date of final rule)**.

SAR Submitted by: NAC International, Inc.

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

Docket Number: 72-1031.

Certificate Expiration Date: **[insert 20 years from the effective date of the final rule]**.

Model Number: MAGNASTOR.

Dated at Rockville, Maryland, this 31st day of October, 2008.

For the Nuclear Regulatory Commission.

/RA/

R. W. Borchardt,
Executive Director for Operations.

Distribution: EDATS: FSME-2008-0052
DILR r/f RidsEdoMailCenter
EDOr/f FSME r/f

ML082970037

OFFICE	DILR/RBB	DILR/RBB	NMSS	OGC
NAME	JMcCausland	MDelligatti	DTHuang	BJones (NLO)
DATE	10/22/2008	10/22/2008	10/10/2008	10/22/2008
OFFICE	ADM	DILR	EDO	
NAME	MLesar (by memo)	MShaffer	RWBorchardt	
DATE	10/22/2008	10/28/2008	10/31/2008	

OFFICIAL RECORD COPY