Rules and Regulations

Federal Register

Vol. 70, No. 108

Tuesday, June 7, 2005

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150–AH64

List of Approved Spent Fuel Storage Casks: HI–STORM 100 Revision

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations to revise the Holtec International HI–STORM 100 cask system listing within the ''List of approved spent fuel storage casks'' to include Amendment No. 2 to Certificate of Compliance (CoC) Number 1014. Amendment No. 2 modifies the cask design to include changes to materials used in construction, changes to the types of fuel that can be loaded, changes to shielding and confinement methodologies and assumptions, revisions to various temperature limits, changes in allowable fuel enrichments, and other changes to reflect current NRC staff guidance and use of industry codes, under a general license.

DATES: *Effective Date:* This final rule is effective June 7, 2005.

FOR FURTHER INFORMATION CONTACT: Jayne M. McCausland, telephone (301) 415–6219, e-mail *jmm2@nrc.gov*, of the Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001.

SUPPLEMENTARY INFORMATION:

Background

Section 218(a) of the Nuclear Waste Policy Act of 1982, as amended (NWPA), requires that ''[t]he Secretary [of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear reactor power 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, ''[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, publishing a final rule in 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'' containing procedures and criteria for obtaining NRC approval of dry storage cask designs. The NRC subsequently issued a final rule on May 1, 2000 (65 FR 25241), that approved the Holtec International HI–STORM 100 cask design and added it to the list of NRC-approved cask designs in § 72.214 as CoC No. 1014.

Discussion

On March 4, 2002, and as supplemented on October 31, 2002; August 6 and November 14, 2003; February 20, April 23, July 22, August 13, October 14, and December 3, 2004, the certificate holder, Holtec International, submitted an application to the NRC to amend CoC No. 1014 to modify the cask design to include changes to materials used in construction, changes to the types of fuel that can be loaded, changes to shielding and confinement methodologies and assumptions, revisions to various temperature limits, changes in allowable fuel enrichments, and other changes to reflect current staff guidance and use of industry codes, under a general license. The specific changes requested in Amendment No. 2 to CoC No. 1014 are listed in the Safety Evaluation Report (SER). No other changes to the HI–STORM–100 cask system design were requested in this application. The NRC staff performed a detailed safety evaluation of the proposed CoC amendment request and found that an acceptable safety margin is maintained. In addition, the NRC staff has determined that there continues to be reasonable assurance that public health and safety and the environment will be adequately protected.

This rule revises the HI–STORM 100 cask design listing in § 72.214 by adding Amendment No. 2 to CoC No. 1014. The amendment consists of changes to the Technical Specifications (TS) as described above. The particular TS which are changed are identified in the NRC staff's SER for Amendment No. 2.

The NRC published a direct final rule (70 FR 9504; February 28, 2005) and the companion proposed rule (70 FR 9550) in the **Federal Register** to revise the Holtec International HI–STORM 100 cask system listing in 10 CFR 72.214 to include Amendment No. 2 to the CoC. The comment period ended on March 30, 2005. One comment letter was received on the proposed rule. The comments were considered to be significant and adverse and warranted withdrawal of the direct final rule. A notice of withdrawal was published in the **Federal Register** on May 12, 2005; 70 FR 24936. Additionally, the NRC staff amended the TS and the SER to clarify the leak rate test requirement, as discussed in the response to Comment 4.

The NRC finds that the amended HI–STORM 100 cask system, as designed and when fabricated and used in accordance with the conditions specified in its CoC, meets the requirements of part 72. Thus, use of the amended Holtec International HI–STORM 100 cask system, as approved by the NRC, will provide adequate protection of public health and safety and the environment. With this final rule, the NRC is approving the use of the Holtec International HI–STORM 100 cask 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 June 7, 2005. Single copies of the CoC and SER are available for public inspection and/or copying for a fee at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. Copies of the public comments are available for review in the

NRC Public Document Room, 11555 Rockville Pike, Rockville, MD.

Summary of Public Comments on the Proposed Rule

The NRC received one comment letter on the proposed rule from the New England Coalition. A copy of the comment letter is available for review in the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. As stated in the proposed rule (70 FR 9550; February 28, 2005), the NRC considered this amendment to be a noncontroversial and routine action. Therefore, the NRC published a direct final rule (70 FR 9504; February 28, 2005) concurrent with the proposed rule (70 FR 9550; February 28, 2005). The NRC indicated that if it received a ''significant adverse comment'' on the proposed rule, the NRC would publish a document withdrawing the direct final rule and subsequently publish a final rule that addressed comments made on the proposed rule. The NRC believes some of the issues raised by the commenter were ''significant adverse comments.'' Therefore, the NRC published a notice withdrawing the direct final rule (70 FR 24936; May 12, 2005). This subsequent final rule addresses the issues raised by the commenter that were within the scope of the proposed rule.

Comments on Amendment 2 to the Holtec International HI–STORM 100 Cask System

The commenter provided specific comments on the draft CoC, the NRC staff's preliminary SER, the TS, and the applicant's Topical Safety Analysis Report. As a result of public comments, both TS 3.1.1 and SER section 8.4 were amended to clarify the leak rate test requirement. Other sections of the SER were changed to conform with the clarification of SER section 8.4. A review of the comments and the NRC staff's responses follows:

Comment 1: The commenter stated that most changes in the CoC amendment ''appear to diminish engineering conservation and increase impact or risk.'' The commenter noted that ''while the changes appear to be within the bounds of regulation, it is not apparent that NRC or the CoC holder have demonstrated that diminished engineering conservation and increased impact or risk are offset by gains and benefits elsewhere.'' The commenter provided as examples of changes which diminish engineering conservation ''incorporating the storage of high burnup fuel and raising maximum permissible fuel cladding temperatures per Proposed Change Number 15a in LAR 1014 to incorporate a permissible spent fuel cladding temperature limit of 4000 °C.''

Response: Amendments to a CoC are reviewed under the same criteria as are used for the approval of the original CoC (10 CFR 72.246). The applicant for an amendment must show that any changes meet all applicable requirements to store spent fuel safely in the cask. However, the applicant is not required to show that a change, which might be viewed as reducing engineering conservatism, is offset by some increased gain or benefit elsewhere as long as the change meets all regulatory requirements for safety. The commenter acknowledges that all the changes appear to be within the bounds of regulations. The NRC staff specifically examined the effects of incorporating the storage of high burnup fuel and incorporating a permissible single spent fuel cladding temperature limit of 400 °C. It should be noted that the commenter made an error in stating that Amendment No. 2 raised ''permissible spent fuel cladding temperature limit'' to 4000 °C. The staff has reviewed the SER of Amendment No. 2 and found 5 references to the fuel temperature of 400 °C on pages 4–2, 4–6, 8–1(2), and 8–2. There was no mention of a 4000 °C temperature in the SER. The 570 °C temperature was mentioned a number of times. Consequently, the potential for a zirconium cladding exothermic reaction would not be an issue at 400 °C.

Comment 2: The commenter referred to an NRC staff statement that no review of the existing CoC was repeated. The commenter believes this may be an error if it also means that no review was undertaken to ascertain if the changes affect conditions, assumptions, and other inputs in determining compliance in the original application.

Response: The NRC staff did not state that no review of the existing CoC was repeated. The SER states that the staff's evaluation focused mainly on modifications requested in the amendment and did not reassess previously approved portions of the CoC, TS, and the Final Safety Analysis Report (FSAR), or those areas of the FSAR modified by Holtec as allowed by 10 CFR 72.48.

Comment 3: The commenter referred to a specific section in the SER which would allow ''storage of damaged fuel in the multipurpose canister (MPC)-32 and damaged fuel and damaged fuel debris in the MPC–32F. Additionally, include appropriate values for soluble boron for MPC–32 and MPC–32F based on fuel assembly array/class, intact versus damaged fuel, and initial enrichment.'' The commenter stated that a definition of ''damaged fuel'' versus ''fuel debris'' including a bounding description of ''damaged fuel'' and ''fuel debris'' should be included. Damaged fuel could range from a rod that marginally failed a leak test to a fuel fragment. Small, unclad bits of fuel would need to be properly containerized and those containers certified to some degree.

Response: The definitions of ''damaged fuel'' and ''fuel debris'' are given in section 1.0, Definitions, of Appendix B to the TS attached to the CoC for Certificate Number 1014, Amendment No. 2. The definitions contain commonly used terminology to distinguish between these two classes of contents. The definitions are repeated here:

''DAMAGED FUEL ASSEMBLIES are fuel assemblies with known or suspected cladding defects, as determined by a review of records, greater than pinhole leaks or hairline cracks, empty fuel rod locations that are not filled with dummy fuel rods, or those that cannot be handled by normal means. Fuel assemblies that cannot be handled by normal means due to fuel cladding damage are considered FUEL DEBRIS.''

''FUEL DEBRIS is ruptured fuel rods, severed rods, loose fuel pellets or fuel assemblies with known or suspected defects which cannot be handled by normal means due to fuel cladding damage.''

''Damaged fuel assemblies'' and ''fuel debris'' must be enclosed in a specially designed ''damaged fuel container'' before being loaded into the cask.

Comment 4: The commenter referred to a section in the SER that stated that the change requested in this amendment affected the inspection and leak testing of the final closure welds. The applicant applied the criteria described in ISG–15, ''Materials Evaluation,'' and ISG–18, ''The Design/Qualification of Final Closure Welds on Austenitic Stainless Steel Canisters as Confinement Boundary for Spent Fuel Storage and Containment Boundary for Spent Fuel Transportation,'' in the amendment request. The commenter further stated that ISG–15 provides an NRC-approved alternative to the ASME Code for the inspection of final closure welds for austenitic materials. The inspection techniques described by ISG–15 will detect any such flaws which could lead to a failure. In addition, ISG–18 states that when the closure welds of austenitic stainless steel canisters are executed in accordance with ISG–15, the staff concludes that no undetected flaws of significant size will exist. Therefore, the NRC staff has reasonable assurance that the inspection demonstrates no credible leakage would occur from the final closure welds of austenitic stainless steel canisters, and that ISG–18 removes the need for a helium leak test of the final closure welds in accordance with ANSI N14.5.

The commenter further stated that, in the past, inspection systems have not been considered adequate for critical welds. A proof-system is typically required due to the consequence of container leakage for failure. The commenter believed it should be noted that helium is used as a leak test agent due to its small size and inert properties. The commenter did not credit that the inspection system referred to, or any inspection system that could be used expeditiously, can detect flaws at the molecular level. The commenter believed it is possible by this revised process to approve welds that may have ordinarily failed a helium leak test and stated this change could constitute a significant reduction in the gas-tight certification of the containers.

Response: Dry storage casks use redundant means to achieve adequate structural and confinement capability. First, the final closures incorporate a double barrier. This is accomplished by the use of two separate welded barriers. For the Holtec design, this is accomplished by way of the structural lid and a separate closure ring that is welded over the structural lid. If, in the unlikely event one of these welded barriers should have a leak, the other would be capable of retaining all the helium inside the storage canister.

With respect to testing of the various closure welds, a number of independent tests are employed. During the welding of the structural lid, Interim Staff Guidance (ISG)-15 specifies that a multi-pass liquid penetrant test (PT) be employed. This means that a PT exam is performed several times during the execution of the weld. The NRC staff guidance calls for the initial weld pass (called root pass) to be examined. Then, depending upon the results of a fracture mechanics evaluation or net-section stress calculation, additional PTs are performed each time a specified thickness of weld metal is deposited. Finally, the last weld pass (cover pass) is examined by PT. If any flaws are detected by any of these tests, the indicated flaw is removed by grinding. Then the affected area is rewelded and retested. Any such rework is governed by the provisions of the American Society of Mechanical Engineers (ASME) Code.

Upon acceptance of the multiple PT exams, the structural lid weld is pressure tested in accordance with the ASME Code. This pressure test is performed at an elevated pressure that is above the design pressure of the vessel. Holtec may use either water or helium for this pressure test.

Due to the large size of the structural lid weld (approximately 3/4-inch thick or greater), it is extremely unlikely that a weld flaw could exist that provided a leak path completely through the weld, and that went undetected after multiple PT exams and the Code-required pressure test. Because of the redundant nature of these independent tests, the weld thickness, and staff and industry experience with heavy section welds, it was deemed unnecessary to perform a helium leak test on the structural lid weld.

After other loading operations are completed, the cask is filled with helium and the helium pressure is adjusted to the design pressure. Then the vent and drain valves (used for filling the vessel with helium) are closed, and the valve access port is covered with a welded-on closure plate. These final closure welds are both helium leak tested and penetrant tested.

After successful completion of these required tests, the closure ring, which provides a second confinement barrier, is welded on over the structural lid, weld, and associated access port welds. This weld is penetrant tested.

As a result of the comment regarding leak testing of the final closure welds, NRC staff reviewed the TS and SER and clarified the helium leak rate test requirements within these documents.

TS 3.1.1.C was modified to reflect the requirement to helium leak rate test the vent and drain port cover plate welds. Section 8.4 of the SER was added to clarify guidance, specifically that the vent and drain port cover plate welds shall be helium leak rate tested but that it is not necessary to helium leak rate test the lid-to-shell weld. Other sections of the SER were revised accordingly to reflect this clarification.

The NRC staff finds that with the double confinement barriers and the multiple tests employed to verify their quality and integrity, a high level of assurance exists regarding the leak-tightness of the confinement boundary.

Comment 5: The commenter referred to section 2.3.5 of the SER, ''Criticality.'' The design criterion for criticality safety is that the effective neutron multiplication factor, including statistical biases and uncertainties, does not exceed 0.95 under normal, off-normal, and accident conditions. The commenter stated that 0.95 is pretty close to <= 1 multiplication, or criticality. The commenter was concerned that ''after pencil-whipping a design someone is willing to work under a margin of error of 0.06.'' The commenter further stated that the exact interior of the structure, the boron loading of the Metamic neutron absorber, the exact position of the fuel (damaged or otherwise) plus other factors, must be within a margin of error, potentially, of 0.06. The commenter stated it was difficult to credit that the fuel assemblies are packed so tight that they can be packed to an MF of 0.94.

Response: A dry-storage cask design which maintains the effective multiplication factor (k_{eff}) $\leq$ 0.95 at a 95-percent confidence level when combined with the additional bounding assumptions described below is considered by the NRC to provide reasonable assurance that the cask and its contents will remain sufficiently subcritical under all credible normal, off-normal, and accident conditions. This acceptance criterion is specified in section 6.0, subsection IV, of the ''Standard Review Plan for Dry Cask Storage Systems,'' NUREG–1536.

In addition to the administrative margin described above (*i.e.*, when the final adjusted value of k_{eff} is at least 0.05 below the critical value of 1.0), the applicant applied the following bounding assumptions in its criticality analysis:

(1) No credit was taken for fuel burnup;

(2) The worst hypothetical combination of tolerances (*i.e.*, those value limits which maximized the multiplication factor) was assumed for the basket structure and fuel assembly dimensions;

(3) Reduced credit from the minimum acceptable boron content in the poison plates (25-percent reduction for Boral plates and 10-percent reduction for the Metamic plates) was applied;

(4) Fuel related burnable neutron absorbers were neglected;

(5) Each fuel assembly was placed in its most reactive position within its respective basket fuel cell;

(6) Neutron absorption in minor structural members and optional heat conducting elements were neglected; and

(7) The flooding water (fresh or borated) was assumed to be at its optimum density to maximize k_{eff}.

These bounding assumptions are consistent with NRC's guidance and provide an additional margin of safety that encompasses any margin of error in the nominal parameter values of the design and contents.

Comment 6: The commenter did not believe that the NRC staff demonstrated consideration of a reasonably assumed error bandwidth within each of the seven coefficients (inputs) to the equation listed in Equation 2.1.9.3. The commenter stated that the cumulative error potential is large enough to have ''Biblical'' overtones, as in ''77 times 7.'' The commenter also stated that one would like to assume that parallel calculations were performed using traditional methods as a ''sanity check.'' The commenter believed that with unique source-term analyses and curve-fitting analyses designed by the applicant to drive the coefficients, verification and validation information regarding this burnup model is essential and should be included or referenced in the SER.

Response: The comment expresses a concern regarding error in the applicant's new methodology and the need for confirmatory analysis to verify and validate the burnup equation and its coefficients. The existing sections 5.0, 5.2.3, and 5.2.4 of the SER address this concern and document that the NRC staff reviewed and explicitly considered the applicant's methodology, the burnup equation, and its coefficients, which include adjustments that account for error and uncertainty. As part of its review, the staff performed confirmatory analyses, using Computer Code SAS–2H, to test the validity of the burnup equation and its associated coefficients. These calculations produced decay heats that were in general agreement with the burnups and associated thermal values applied in the burnup equation. The NRC staff did not identify any significant errors in the new methodology, the burnup equation, and its coefficients. The staff believes that its review of the new methodology, including confirmatory calculations, provides reasonable assurance that the shielding and thermal design is safe and satisfies the regulations at 10 CFR part 72.

Comment 7: The commenter stated that NRC shot the SER through with subjective language. The example given was ''The amendment request addresses a slight increase of 10% in the off-normal internal design.'' The commenter objected to using the word ''slight'' and stated that describing a 10% increase as slight is amateurish in regulatory language or in any technical document and gives the appearance of collusion, as if to help sell to the audience any changes that are less conservative. The commenter questioned if a 10% reduction in the allowable pressure would be described as huge.

Response: Section 3.0 of the SER provides an overview of the structural evaluation. The full text of the third paragraph of that section to which the commenter referred is as follows:

''The amendment request addresses a slight increase of 10% in the off-normal internal design pressure, increases in the allowable temperature of the structural materials and the creation of an eighth type MPC unit: The MPC–32F. No changes were made to the drawings of the various components that have been previously provided in Section 1.5 of the FSAR since no material or design dimensions were revised.''

On page S–2 of the SER, the following is stated in Item 16: ''Increase off-normal design pressure from 100 psig to 110 psig and increase the normal temperature limit for the overpack lid top plate from 350-degrees F to 450-degrees F.'' This reflects the change incorporated into the Amendment 2 documents.

Section 3.1.2.1 of the SER, ''Criteria for Multi-Purpose Dry Storage Canisters,'' contains the following statements: ''The proposed amendment revises the MPC off-normal internal pressure from 100 psig to 110 psig as noted in Table 2.2.1 of the FSAR * * *. No physical changes were necessary to accommodate the revised pressure * * *.''

The technical document is quite clear in the fact that the increase of 10 psig (an increase of 10 percent) has no impact on the physical dimensions or design of the MPC pressure vessel. The reason for this is that the physical dimensions of the MPC are not governed by the off-normal internal pressure.

Comment 8: The commenter stated that there is an element of vagueness in the SER that offers little guidance to a reader seeking to confirm the degree of rigor to which the amendment application was exposed. The NRC refers to many staff reviews of the licensee's practices, but without specifics. In some cases, it is inferred that the staff verified calculations; in others, that approval was cursory because of similarities with other cask models. It is difficult to say that early cask designs will be safe in the long term. One has to be careful in approving a new design that is ''similar'' to the old one when the old one has not yet met the test of time.

Response: NRC disagrees with the commenter that this amendment application was not exposed to a sufficient degree of rigor. This amendment request was under active review by the NRC staff for over 2.75 years. As discussed in the response to Comment #1, amendments to a CoC are reviewed under the same criteria as are used for the approval of the original CoC (10 CFR 72.246). Also, the application for an amendment must show that any changes meet all applicable requirements to store spent fuel safely in the cask. NRC's review process is documented in NUREG–1536 entitled ''Standard Review Plan for Dry Cask Storage Systems.'' NRC regulations permit applicants to demonstrate compliance by various means, including certification through testing, analyses, comparison to similar approved designs, or combinations of these methods. Referencing previously reviewed information that has not changed is acceptable. The SER documents the NRC's review process and conclusions regarding the cask design's ability to comply with part 72. Furthermore, this amendment will not extend the CoC period. Therefore, it does not change the conclusion reached previously regarding the safety of the cask with respect to time.

Comment 9: The commenter is concerned that the NRC review does not extend beyond a review of the proposed theoretical model. The commenter also stated that the application spoke very little about QA/QC with respect to cask/canister materials and performance.

Response: The NRC conducts planned and reactive inspections of cask vendors and their major fabricators on a continuing basis. The results of these inspections, including any technical concerns of a licensing nature, are shared internally with the NRC's Spent Fuel Project Office staff, and are documented in publicly available inspection reports. Quality assurance program implementation inspections were performed at the Holtec corporate office in September 2004 (reference ML043080505) and its fabricator, U.S. Tool & Die, in October 2004 (reference ML043100408). No significant adverse findings with respect to quality assurance/control issues were identified during those inspections.

Summary of Final Revisions

Section 72.214 List of Approved Spent Fuel Storage Casks

Certificate No. 1014 is revised by adding the effective date of Amendment Number 2.

Good Cause To Dispense With Deferred Effective Date Requirement

The NRC finds that good cause exists to waive the 30-day deferred effective date provisions of the Administrative Procedure Act (5 U.S.C. 553(d)). The primary purpose of the delayed effective date requirement is to give affected persons, *e.g.*, licensees, a reasonable time to prepare to comply with or take other action with respect to the rule. In this case, the rule does not require any action to be taken by licensees. The regulation allows, but does not require, use of the amended Holtec International HI–STORM 100 cask system for the storage of spent nuclear fuel. The Holtec International HI–STORM 100 cask system, amended to include changes to materials used in construction, changes to the types of fuel that can be loaded, changes to shielding and confinement methodologies and assumptions, revisions to various temperature limits, changes in allowable fuel enrichments, and other changes to reflect current staff guidance and use of industry codes, meets the requirements of 10 CFR part 72, and is ready to be used. A number of utilities have an operational need to load the casks to preserve full core off-load capability at their sites. The utilities are preparing for refueling outages in Fall of 2005 and need to load fuel into the storage casks in advance of the outages. The amended Holtec International HI–STORM cask system, as approved by the NRC, will continue to provide adequate protection of public health and safety and the environment.

Voluntary Consensus Standards

The National Technology Transfer 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 final rule, the NRC is revising the HI-STORM 100 cask system design listed in § 72.214 (List of NRC-approved spent fuel storage cask designs). This action does not constitute the establishment of a standard that establishes 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.

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 is not a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. This final rule amends the CoC for the HI-STORM 100 cask system 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 amendment modifies the present cask system design to include changes to materials used in construction, changes to the types of fuel that can be loaded, changes to shielding and confinement methodologies and assumptions, revisions to various temperature limits, changes in allowable fuel enrichments, and other changes to reflect current NRC staff guidance and use of industry codes, under a general license. The EA and finding of no significant impact on which this determination is based are available for inspection at the NRC Public Document Room, 11555 Rockville Pike, Rockville, MD. Single copies of the EA and finding of no significant impact are available from Jayne M. McCausland, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone (301) 415–6219, e-mail *jmm2@nrc.gov*.

Paperwork Reduction Act Statement

This 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 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, 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 § 72.214. On May 1, 2000 (65 FR 25241), the NRC issued an amendment to part 72 that approved the HI-STORM 100 cask design by adding it to the list of NRC-approved cask designs in § 72.214. On March 4, 2002, and as supplemented on October 31, 2002; August 6 and November 14, 2003; February 20, April 23, July 22, August 13, October 14, and December 3, 2004, the certificate holder, Holtec International, submitted an application to the NRC to amend CoC No. 1014 to modify the present cask system design to include changes to materials used in construction, changes to the types of fuel that can be loaded, changes to shielding and confinement methodologies and assumptions, revisions to various temperature limits, changes in allowable fuel enrichments, and other changes to reflect current staff guidance and use of industry codes, under a general license.

The alternative to this action is to withhold approval of this amended cask system design and issue an exemption to each utility. This alternative would cost both the NRC and the utilities more time and money because each utility would have to pursue an exemption.

Approval of the final rule will eliminate this problem and is consistent with previous NRC actions. Further, the final rule will have no adverse effect on public health and safety. This final rule has no significant identifiable impact or benefit on other Government agencies. Based on this discussion of the benefits and impacts of the alternatives, the NRC concludes that the requirements of the 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 thus, this action is recommended.

Regulatory Flexibility Certification

In accordance with 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 the licensing and operation of nuclear power plants, independent spent fuel storage facilities, and Holtec International. The companies that own these plants do not fall within the scope of the definition of ''small entities'' set forth in the Regulatory Flexibility Act or the Small Business Size Standards set out in regulations issued by the Small Business Administration at 13 CFR part 121.

Backfit Analysis

The NRC has determined that the backfit rule (10 CFR 50.109 or 10 CFR 72.62) does not apply to this direct final rule because this amendment does not involve any provisions that would impose backfits as defined. Therefore, a backfit analysis is not required.

Small Business Regulatory Enforcement Fairness Act

In accordance with the Small Business Regulatory Enforcement Fairness 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, Criminal penalties, Manpower training programs, 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; 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).

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 1014 is revised to read as follows:

§ 72.214 List of approved spent fuel storage casks.

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Certificate Number: 1014.

Initial Certificate Effective Date: June 1, 2000.

Amendment Number 1 Effective Date: July 15, 2002.

Amendment Number 2 Effective Date: June 7, 2005.

SAR Submitted by: Holtec International.

SAR Title: Final Safety Analysis Report for the HI–STORM 100 Cask System.

Docket Number: 72–1014.

Certificate Expiration Date: June 1, 2020

Model Number: HI–STORM 100

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Dated at Rockville, Maryland, this 25th day of May, 2005.

For the Nuclear Regulatory Commission.

Luis A. Reyes,

Executive Director for Operations.

[FR Doc. 05–11216 Filed 6–6–05; 8:45 am]

BILLING CODE 7590–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2005–20724; Directorate Identifier 2004–NM–233–AD; Amendment 39–14115; AD 2005–11–13]

RIN 2120–AA64

Airworthiness Directives; BAE Systems (Operations) Limited Model BAe 146 Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain BAE Systems (Operations) Limited Model BAe 146 airplanes. This AD requires repetitive inspections for cracks of the fuselage pressure skin above the left and right main landing gear (MLG) bay. This AD also requires corrective action, including related investigative actions, if leaks are found. This AD is prompted by reports of cracks in the fuselage pressure skin above the left and right MLG bay. We are issuing this AD to detect and correct fatigue cracking in the fuselage pressure skin above the left and right MLG bay; such fatigue cracking could adversely affect the structural integrity of the fuselage and its ability to maintain pressure differential.

DATES: This AD becomes effective July 12, 2005.

The incorporation by reference of a certain publication listed in the AD is approved by the Director of the Federal Register as of July 12, 2005.

ADDRESSES: For service information identified in this AD, contact British Aerospace Regional Aircraft American Support, 13850 Mclearen Road, Herndon, Virginia 20171.

Docket: The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at *http://dms.dot.gov,* or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647–5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street SW., room PL–401, Washington, DC. This docket number is FAA–2005–20724; the directorate identifier for this docket is 2004–NM–233–AD.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM–116, FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–1175; fax (425) 227–1149.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with an AD for certain BAE Systems (Operations) Limited Model BAe 146 airplanes. That action, published in the **Federal Register** on March 30, 2005 (70 FR 16173), proposed to require repetitive inspections for cracks of the fuselage pressure skin above the left and right main landing gear (MLG) bay. The action also proposed AD to require