

[7590-0IP]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 51

RIN: 3150-AI47  
[NRC-2008-0404]

Consideration of Environmental Impacts of Temporary Storage  
of Spent Fuel After Cessation of Reactor Operation

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Final Rule.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) is revising its generic determination on the environmental impacts of storage of spent fuel at, or away from, reactor sites after the expiration of reactor operating licenses. The revisions reflect findings that the Commission has reached in an update and supplement to the 1990 Waste Confidence rulemaking proceeding published elsewhere in this issue of the *Federal Register*. The Commission now finds that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations (ISFSIs).

**EFFECTIVE DATE:** (INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER).

**ADDRESSES:** Publicly available documents related to this rulemaking may be viewed electronically on the public computers located at the NRC's Public Document Room (PDR), Room O1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The PDR reproduction contractor will copy documents for a fee. Selected documents and information on this rulemaking can be accessed at the Federal rulemaking portal, <http://regulations.gov> by searching on rulemaking docket ID: NRC-2008-0404.

Publicly available documents created or received at the NRC are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/NRC/reading-rm/adams.html>. From this site, the public can gain entry into the NRC's Agencywide Document Access and Management System (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 PDR Reference staff at (800) 397-4209, (301) 415-4737, or by email to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

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## **SUPPLEMENTARY INFORMATION:**

### **Background**

In 1990, the Commission concluded a generic rulemaking proceeding to reassess its degree of confidence that radioactive wastes produced by nuclear power plants can be safely

disposed of, to determine when such disposal or offsite storage will be available, and to determine whether radioactive wastes can be safely stored onsite past the expiration of existing facility licenses until offsite disposal or storage is available. This proceeding reviewed the Commission's 1984 findings on these issues in a generic rulemaking proceeding, which became known as the "Waste Confidence Proceeding." The 1990 proceeding resulted in the following five reaffirmed or revised Waste Confidence findings:

- (1) The Commission finds reasonable assurance that safe disposal of high-level radioactive waste (HLW) and spent nuclear fuel (SNF) in a mined geologic repository is technically feasible;
- (2) The Commission finds reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century, and that sufficient repository capacity will be available within 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial HLW and SNF originating in such reactor and generated up to that time;
- (3) The Commission finds reasonable assurance that HLW and SNF will be managed in a safe manner until sufficient repository capacity is available to assure the safe disposal of all HLW and SNF;
- (4) The Commission finds reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin, or at either onsite or offsite ISFSIs; and

- (5) The Commission finds reasonable assurance that safe independent onsite spent fuel storage or offsite spent fuel storage will be made available if such storage capacity is needed.

(55 FR 38474; September 18, 1990).

These five findings formed the basis of the Commission's revised generic determination of no significant environmental impact from temporary storage of SNF after cessation of reactor operation, which was codified at 10 CFR 51.23(a):

The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impact for at least 30 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that at least one mined geologic repository will be available within the first quarter of the twenty-first century, and sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial [HLW] and [SNF] originating in such reactor and generated up to that time.

(55 FR 38474; September 18, 1990). Thus, the environmental impacts of spent fuel storage for the period following the term of a reactor operating license or amendment or reactor combined license or amendment or initial independent spent fuel storage installation license or amendment need not be considered in proceedings on applications for such licenses or amendments. See 10 CFR 51.23(b).

In 1999, the Commission reviewed its Waste Confidence findings and concluded that experience and developments after 1990 had confirmed the findings and made a comprehensive reevaluation of the findings unnecessary. See 64 FR 68005; December 6, 1999.

### **The proposed rule**

In 2008, the Commission decided to resolve generically appropriate issues that might be raised in licensing proceedings on anticipated combined operating license (COL) applications for new reactors, so that the efficiency of those proceedings could be enhanced. The Commission regarded waste confidence to be such an issue. Prior to NRC's original Waste Confidence proceeding, the Commission had stated that, as a matter of policy, it "would not continue to license reactors if it did not have reasonable confidence that the wastes can and will in due course be disposed of safely." *Natural Resources Defense Council; Denial of Petition for Rulemaking*, 42 FR 34391, 34393 (1977). It has been 19 years since the last formal review of the Waste Confidence findings, so the Commission decided to revisit the findings to address any concerns that one or more of the findings are out-of-date or not sufficiently supportive of the upcoming COL proceedings. The Commission is now updating and revising the 1990 findings.

On October 9, 2008, the Commission published the proposed update and revision of two of the Waste Confidence findings, along with a request for public comment, in the *Federal Register*. (73 FR 59551; October 9, 2008). In the same issue of the *Federal Register*, the Commission proposed a modification of its generic determination of no significant environmental impact from the temporary storage of spent fuel after cessation of reactor operations codified at 10 CFR 51.23(a). (73 FR 59547; October 9, 2008). The Commission proposed to modify its generic determination to state that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor at its spent fuel storage basin or at either onsite or offsite ISFSIs until a disposal facility can reasonably be expected to be available.

### **The final rule**

The Commission is now publishing its final rule amending 10 CFR 51.23(a), along with the final update and revision to the Waste Confidence findings (published separately in this issue of the *Federal Register*). The Commission is revising two of its findings as follows:

**Finding 2:** The Commission finds reasonable assurance that sufficient mined geologic repository capacity will be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial HLW and spent fuel originating in such reactor and generated up to that time.

**Finding 4:** The Commission finds reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and either onsite or offsite independent spent fuel storage installations.

The Commission, in response to public comments, and to achieve greater consistency with Finding 4, is also modifying the rule as proposed so that the final rule now includes a timeframe for the safe storage of spent nuclear fuel:

- (a) The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that sufficient mined geologic repository capacity will be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial high-level

waste and spent fuel originating in such reactor and generated up to that time.

### **Public comments**

The Commission received 157 comment letters, as well as two form letters sent by 1990 and 941 commenters, respectively. Many of the comment letters contained multiple comments on either the proposed rule or the proposed revisions to the Waste Confidence findings or both. All comments received on both notices have been considered together and are addressed in the final Waste Confidence Decision Update. The main issues raised by the comments are briefly discussed below.

Many commenters argued that NRC has not complied with the National Environmental Policy Act (NEPA) in issuing its proposed revisions to the Waste Confidence findings and to its generic determination in 10 CFR 51.23(a) because they believe that the revisions constitute “generic licensing decisions” and need to be supported by a Generic Environmental Impact Statement (GEIS) that addresses all aspects of the nuclear fuel cycle. In considering NRC’s compliance with NEPA in revising its Waste Confidence findings and temporary storage rule, it is important to keep in mind the limited scope of these revisions. The Commission is amending its generic determination of no significant environmental impact from the temporary storage of spent fuel after cessation of reactor operation contained in 10 CFR 51.23(a) to conform it to the Commission’s revised Finding 4 of the Waste Confidence Decision. Finding 4 is revised to provide reasonable assurance that spent fuel can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation of a reactor, rather than for at least 30 years as in the present Finding 4. The 60 years reflects the Commission’s revised Finding 2 that reasonable assurance exists that sufficient repository

capacity will be available within 50-60 years beyond the licensed life for operation of any reactor.

The revised generic determination is not a generic licensing decision. It does not authorize the operation of a nuclear power plant (NPP), the renewal of a NPP license, or the production or storage of spent fuel by a NPP. Licensing proceedings for any of these actions are supported by both specific and generic environmental impact statements (EISs) or environmental assessments (EAs), which do consider the potential environmental impacts of storage of spent fuel during the term of the license. What is not considered—due to the generic determination in § 51.23(a)—is the potential environmental impact of storage of spent fuel for a 60-year period (rather than a 30-year period) after the end of licensed operations. The EA supporting this 30-year extension of the generic determination is the Waste Confidence Decision Update, which supports the Commission's Finding of No Significant Impact (FONSI) and concurrent decision to not conduct an EIS.

A number of commenters asserted that NRC, in making its EA and FONSI, had not complied with the procedural requirements for a FONSI, which include the requirement for an EA and for identifying all the documents on which a FONSI is based. As stated above, the update and revision of the Waste Confidence Decision is the EA supporting the amendment of the generic determination in 10 CFR 51.23(a). All of the documents relied upon in preparing the Update and Final Rule are referenced. Two of the referenced documents are not publicly available; i.e., reports concerning the safety and security of spent fuel pool storage issued by Sandia National laboratories and the National Academies (NAS), which are either Official Use Only—Security Related Information, Safeguards Information (SGI) or Classified. Although these documents cannot be released to the public, redacted or publicly available summaries are available. A redacted version of the Sandia study can be found in ADAMS at ML062290362



and the unclassified summary of the NAS report can be purchased by accessing the National Academies website at: [http://www.nap.edu/catalog.php?record\\_id=11263#description](http://www.nap.edu/catalog.php?record_id=11263#description), or can be read online at: [http://books.nap.edu/openbook.php?record\\_id=11263&page=R1](http://books.nap.edu/openbook.php?record_id=11263&page=R1). No other non-public documents are referenced in the Waste Confidence update.

A number of commenters argue that NRC's revisions of its Waste Confidence findings and temporary storage rule do not comply with the holding of the Ninth Circuit Court of Appeals in *San Luis Obispo Mothers for Peace v. NRC*, 449 F. 3d 1016 (2006), *cert. denied*, 127 S. Ct. 1124 (2007), that NEPA requires an examination of the environmental impacts that would result from an act of terrorism against an independent spent fuel storage installation (ISFSI) because such an attack is reasonably foreseeable and not remote and speculative as NRC had argued. Despite the outcome of *Mothers for Peace*, the Commission continues to believe that, outside of the Ninth Circuit, the environmental effects of a terrorist attack do not need to be considered in its NEPA analyses. See *Amergen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-08, 65 NRC 124 (2007). Recently, the Third Circuit U.S. Court of Appeals upheld the Commission's position that terrorist attacks are too far removed from the natural or expected consequences of agency action to require an environmental impact analysis. *New Jersey Dept. of Environmental Protection v. U.S. Nuclear Regulatory Com'n*, 561 F.3d 132 (2009). But even though NRC continues to believe that the environmental impacts of a terrorist attack do not need to be considered outside of the Ninth Circuit, the EA for this update and rule amendment includes a discussion of terrorism that NRC believes satisfies the Ninth Circuit's holding in *Mothers for Peace*.

Some commenters believe that NRC revision of its Waste Confidence findings violate the Atomic Energy Act of 1954, as amended (AEA), because the AEA precludes NRC from licensing any new NPP or renewing the license of any existing NPP if it would be "inimical ... to

the health and safety of the public.” 42 U.S.C. § 2133(d). As explained *supra*, NRC’s revised Waste Confidence findings and revised generic determination are not licensing decisions. They are not determinations made as part of the licensing proceedings for NPPs or ISFSIs or the renewal of those licenses. They do not authorize the storage of SNF in spent fuel pools or ISFSIs. The revised findings and generic determination are conclusions of the Commission’s environmental analyses, under NEPA, of the foreseeable environmental impacts stemming from the storage of spent fuel after the end of reactor operation.

Other comments questioned NRC’s basis for reaffirming Finding 1 and Finding 3 and for the revisions made in Findings 2 and 4. Those comments are fully addressed in the final Update as well as other, more minor, comments. The Commission, *infra*, restates its reasons for revising Findings 2 and 4 and for its confidence that spent fuel can be safely stored for at least 60 years by which time a repository can reasonably be expected to be available.

### **Specific Question for Public Comment**

The Waste Confidence Decision Update considers the many comments received on the specific question for public comment in the Commission’s proposals, *i.e.*, whether Finding 2 should contain a timeframe, as proposed, or take a more general approach that a repository will be available when needed (the alternative approach). The State of Nevada, Clark and Eureka Counties in Nevada, and the Nuclear Energy Institute favor the alternative approach. They generally believe that a timeframe involves too much speculation about future events and that licensed storage of spent nuclear fuel will be safe no matter what the time needed. States, State organizations, Nye County, Nevada, environmental groups, and other commenters want the Commission to retain a timeframe. In general, they believe that, in the absence of a timeframe, the Commission’s confidence in the eventual disposal of spent fuel would rest on pure speculation; that it would ignore intergenerational ethical concerns of this generation

reaping the benefits of nuclear energy while passing off the problem of waste disposal to future generations; and that a timeframe is necessary to provide an incentive for the Federal Government to meet its responsibilities for the disposal of spent fuel and high-level radioactive waste.

The Commission has confidence that spent fuel can be safely stored without significant environmental impact for long periods of time for all the reasons described in its discussion of Findings 3, 4, and 5 in the Waste Confidence Decision Update. However, this fact does not mean that the Commission has examined scientific and technological evidence supporting *indefinite* storage. The commenters supporting the alternative approach did not provide such evidence. The Commission believes that it would be more prudent to allow for the accumulation of further evidence and experience before taking an action which would replace a timeframe with indefinite storage. Therefore, the Commission is including a timeframe in its final rule.

#### *Safe storage of spent fuel*

This update has strengthened the Commission's confidence in the safety and security of SNF storage, both in spent fuel pools and in ISFSIs. In 1990, the Commission determined that experience with spent fuel pools continued to confirm that pool storage is a benign environment that does not lead to significant degradation of spent fuel integrity; that the water pools in which the assemblies are stored will remain safe for extended periods; and that degradation mechanisms are well understood and allow time for appropriate remedial action. Similarly, by 1990, the Commission had gained experience with dry storage systems that confirmed the Commission's 1984 conclusions that material degradation processes in dry storage are well-understood and that dry storage systems are simple, passive, and easily maintained. In fact, one of the bases for the Commission's confidence in the safety of dry storage was its 1988 amendment to 10 CFR Part 72 that addressed spent fuel storage in a monitored retrievable

storage installation (MRS) for a license term of 40 years, with the possibility of renewal. In the environmental assessment for the MRS rule, the Commission found confidence in the safety and environmental insignificance of dry storage for 70 years following a period of 70 years of storage in a storage pool, for a total of 140 years of storage. See *NUREG-1092: Environmental Assessment for 10 CFR Part 72 "Licensing Requirements for the Independent Storage of Spent Fuel and High-Level Radioactive Waste,"* August 1984. Nothing has occurred in the intervening years to call into question the Commission's confidence in the long-term safety of both wet and dry storage of SNF. NRC has approved a 20-year license renewal for a wet ISFSI and 40-year license renewals for three dry ISFSIs.

Since 1990, the Commission's primary focus has been on potential accidents. And since September 11, 2001, this focus has expanded to include security events that might lead to a radioactive release from stored SNF. Multiple studies of the safety and security of spent fuel storage, including the potential for the draining of a spent fuel pool leading to a zirconium fire and for an airplane crashing into an ISFSI, have been undertaken by NRC and by other entities, such as the National Academy of Sciences (NAS). These studies and the Commission's regulatory actions have reinforced NRC's view that spent fuel storage systems are safe, secure, and without significant environmental impacts. See, e.g., Letter to Senator Pete V. Domenici from Nils J. Diaz, March 14, 2005, enclosing *NRC Report to Congress on the [NAS] Study on the Safety and Security of Commercial [SNF] Storage*, March 2005; *Denial of Petitions for Rulemaking: The Attorney General of the Commonwealth of Massachusetts, The Attorney General of California*, PRM-51-10, PRM-51-12, 73 FR 46204 (August 8, 2008); *In the Matter of Private Fuel Storage, L.L.C.*, CLI-05-19; 62 NRC 403 (2005).

In sum, the characteristics of spent fuel storage facilities, the studies of the safety and security of spent fuel storage, NRC's extensive experience in regulating spent fuel storage and

ISFSIs and in certifying dry cask storage systems, and NRC's actions in approving 40-year license renewals for three ISFSIs (meaning that the safety of dry storage after licensed operation at these ISFSIs has been approved for at least a 60-year period) support the Commission's confidence in the long-term safety and security of spent fuel storage.

*The availability of a repository*

On June 3, 2008, DOE submitted the Yucca Mountain (YM) application to NRC and on September 8, 2008, NRC Staff notified DOE that it found the application acceptable for docketing (73 FR 53284; September 15, 2008). Although the licensing proceeding for the YM repository is ongoing, the current Administration and DOE leadership have made it clear that the YM repository will not be built. The President's 2010 budget proposal states that the "Administration proposes to eliminate the Yucca Mountain repository program." *Terminations, Reductions, and Savings: Budget of the U.S. Government, Fiscal Year 2010, p.68 available at: <http://www.whitehouse.gov/omb/budget/fy2010/assets/trs.pdf>* (last visited on May 18, 2009). Given this statement, it appears unlikely that the YM repository will be built. The Administration has, however, decided to continue with the NRC licensing proceeding, and any experience gained by this process will aid DOE and the Commission in any future high-level waste repository licensing proceeding. *Id.* Further, the Commission does not believe that any of the developments since it issued its proposed update and proposed rule require it to revise any of its proposed findings. The proposed findings assumed that the Yucca Mountain repository might not be built and that DOE would have to select a new repository site. Any decision to terminate the Yucca Mountain project simply reinforces the appropriateness of revisiting the 1990 decision at this time.

The Commission's update uses a "target date" approach, as described in the revision of Waste Confidence Finding 2. This approach is used by many nations with geologic repository

programs and can be a useful vehicle for considering the complex technical and institutional issues involved in predicting repository availability. The NRC believes that it is reasonable to assume that a new repository program will have begun by 2025, and the Commission intends to use 2025 as the hypothetical starting point for a new repository program. The Commission remains confident that disposal of SNF and HLW in a geologic repository is technically feasible and that DOE should be able to locate a suitable site for repository development in no more time than was needed for the Yucca Mountain repository program (about 20 years). Both domestic and international developments have made it clear that confidence in the technical feasibility of a repository alone is not sufficient to bring about the broader societal and political acceptance of a repository. Achieving this broader support for construction of a repository at a particular site requires a broad public outreach program. In some countries community acceptance has taken 25-35 years. This means that if a new repository program starts in 2025, it could be reasonable to expect that a repository would become available by 2050-2060. It must be emphasized that this does not represent a hard and fast date by which a repository must be available for safety or environmental reasons. The Commission did not define a period when a repository will be needed for safety or environmental reasons in 1990 and it is not doing so now; it is only explaining its view of when a repository could reasonably be expected to be available.

*Availability of repository capacity for disposal of spent fuel from all reactors*

The Commission's generic determination of no significant environmental impact from the temporary storage of spent fuel after cessation of reactor operation has included a prediction that sufficient repository capacity for a reactor's fuel will be available within 30 years beyond the licensed life for operation of that reactor. This prediction was not based on safety or environmental considerations; it was based on finding that 30 years beyond the licensed life for operation of even the earliest reactors would not occur until after 2025. Thus, the Commission's

confidence that a repository would be available by 2025 still meant that no reactor would need to store its SNF for more than 30 years beyond its licensed life for operation.

If it is assumed that a repository will not be available until 2050-2060, then this prediction can no longer be maintained. According to the Nuclear Energy Institute, there are 16 reactor operating licenses that will expire between 2012 and 2020 and an additional 41 licenses that will expire between 2021 and 2030. NEI, Resources & Stats, <http://www.nei.org/resourcesandstats/graphicsandcharts/licenseinformation> (last visited May 22, 2009). For licenses that are not renewed, some spent fuel will need to be stored for more than 30 years beyond the licensed life for operation. There are 23 reactors that were formerly licensed to operate, but have been permanently shut down. See *2008-2009 US NRC Information Digest* NUREG-1350, Vol. 20, Appendix B, p. 113, available at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1350/> (last visited May 28, 2009). For most of these plants, 30 years beyond the licensed life for operation will fall in the 2030s and 2040s. Thus, for virtually all of these plants, spent fuel will have to be stored beyond 30 years from the expiration of the license if a repository is not available until 2050-2060. For this reason, the Commission is amending its generic determination that sufficient repository capacity will be available “within 30 years of the expiration of the licensed life for operation of all reactors” to “at least 60 years beyond the licensed life for operation.” As stated above, this was not a safety finding, and the amendment is made solely to be consistent with an assumption that a repository will not be available until 2050-2060.

### **Summary of Amendments by Section**

The Commission is adopting the proposed revision, with two related changes. As a number of commenters noted, the proposed rule was phrased differently from the proposed revision of Finding 2. The proposed rule made a generic determination of safe storage of SNF “until a disposal facility can reasonably be expected to be available,” whereas Finding 2 made a

prediction of repository availability “within 50-60 years beyond the licensed life for operation.” Finding 2 bounds the conclusion in Finding 4 that there is reasonable assurance of safe storage of SNF “for at least 60 years beyond the licensed life for operation.” The proposed rule was only intended to simplify the rule language and not to prematurely adopt the proposed update’s alternative Finding 2, which would have required a similar change to Finding 4. The basis for the rule is identical to the basis for the findings, no matter how the rule itself is phrased. But to avoid confusion and respond to the issues raised in the comments, the Commission has reconsidered the phrasing of the proposed rule, and the generic determination in the final rule now is made identical to Finding 4.

Section 51.23(a) is also revised to reinsert a version of the second sentence in the present rule that was excluded from the proposed rule. This statement was added to make clear that Finding 4 does not contemplate indefinite storage and to underscore the fact that the 60 year storage period is related to the Commission’s expectation that sufficient repository capacity will be available within 50-60 years of the licensed life for the operation of any reactor. Accordingly, the added sentence provides that there is “reasonable assurance that sufficient mined geologic repository capacity will be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial high-level waste and spent fuel originating in such reactor and generated up to that time.”

Section 51.23(a) is revised to provide the Commission’s generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin or at either onsite or offsite ISFSIs. The time period of “at least 30



years” beyond the licensed life for operation is deleted. This amendment also deletes the predictions that at least one mined geologic repository will be available within the first quarter of the twenty-first century and that sufficient repository capacity will be available within 30 years beyond the licensed life for operation of any reactor to dispose of the commercial HLW and SNF originating in such reactor and generated up to that time. The amendment adds the prediction that sufficient mined geologic repository capacity will be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial HLW and spent fuel originating in such reactor and generated up to that time.

### **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 final rule, NRC is modifying its generic determination on the consideration of environmental impacts of temporary storage of spent fuel after cessation of reactor operations to provide that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite ISFSIs. This action does not constitute the establishment of a standard that establishes generally applicable requirements.

### **Finding of No Significant Environmental Impact: Availability**

This final rule amends 10 CFR part 51 of the Commission’s regulations to modify the generic determination that for at least 30 years beyond a reactor’s licensed life for operation

(which may include the term of a revised or renewed license) no significant environmental impacts will result from the storage of spent fuel generated in that reactor in its spent fuel storage basin or at either onsite or offsite independent spent fuel storage installations. This final rule amends that determination to state that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite independent spent fuel storage installations. The environmental assessment on which the revised generic determination is based is the revision and update to the Waste Confidence findings published elsewhere in this issue. Based on this analysis, the Commission finds that this final rulemaking has no significant environmental impacts. The final revisions and update to the Waste Confidence findings are available as specified in the ADDRESSES section of this notice.

#### **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 3150-0021.

#### **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**

A regulatory analysis has not been prepared for this regulation because this regulation does not establish any requirements that would place a burden on licensees.

**Regulatory Flexibility Certification**

Under the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission certifies that this rule does not have a significant economic impact on a substantial number of small entities. This final rule describes a revised basis for continuing in effect the current provisions of 10 CFR 51.23(b), which provides that no discussion of any environmental impact of spent fuel storage in reactor facility storage pools or ISFSIs for the period following the term of the reactor operating license or amendment or initial ISFSI license or amendment for which application is made is required in any environmental report, environmental impact statement, environmental assessment, or other analysis prepared in connection with certain actions. This rule affects only the licensing and operation of nuclear power plants or ISFSIs. Entities seeking or holding Commission licenses for these facilities 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 at 10 CFR 2.810.

**Backfit Analysis**

The NRC has determined that the backfit rule (§§ 50.109, 70.76, 72.62, or 76.76) does not apply to this final rule because this amendment does not involve any provisions that would impose backfits as defined in the backfit rule. Therefore, a backfit analysis is not required.

### **Congressional Review Act**

In accordance with 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 of OMB.

### **List of Subjects in 10 CFR Part 51**

Administrative practice and procedure, Environmental impact statement, Nuclear materials, Nuclear power plants and reactors, Reporting and recordkeeping requirements.

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. 553, the NRC is adopting the following amendment to 10 CFR Part 51.

### **PART 51 – ENVIRONMENTAL PROTECTION REGULATIONS FOR DOMESTIC LICENSING AND RELATED REGULATORY FUNCTIONS**

1. The authority citation for Part 51 continues to read as follows:

**Authority:** Sec. 161, 68 Stat. 948, as amended, sec. 1701, 106 Stat. 2951, 2952, 2953, (42 U.S.C. 2201, 2297(f)); secs. 201, as amended, 202, 88 Stat. 1242, as amended, 1244 (42 U.S.C. 5841, 5842); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note). Subpart A also issued under National Environmental Policy Act of 1969, secs. 102, 104, 105, 83 Stat. 853-854, as amended (42 U.S.C. 4332, 4334, 4335), and Pub. L. 95-604, Title II, 92 Stat. 3033-3041; and sec. 193, Pub. L. 101-575, 104 Stat. 2835 (42 U.S.C. 2243). Sections 51.20, 51.30, 51.60, 41.80, and 51.97 also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241, and sec. 148, Pub. L. 100-203, 101 Stat. 1330-223 (42 U.S.C. 10155, 10161, 10168). Section 51.22 also issued under sec. 274, 73 Stat. 688, as amended by 92 Stat. 3036-3038 (42 U.S.C. 2021) and under Nuclear Waste Policy Act of 1982, sec. 121, 96 Stat. 2228 (42 U.S.C. 10141).

Sections 51.43, 51.67, and 51.109 also under Nuclear Waste Policy Act of 1982, sec 114(f), 96 Stat 2216, as amended (42 U.S.C. 10134 (f)).

2. In § 51.23, paragraph (a) is revised to read as follows:

**51.23 Temporary storage of spent fuel after cessation of reactor operation – generic determination of no significant environmental impact.**

(a) The Commission has made a generic determination that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impacts for at least 60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of that reactor in a combination of storage in its spent fuel storage basin and at either onsite or offsite independent spent fuel storage installations. Further, the Commission believes there is reasonable assurance that sufficient mined geologic repository capacity will be available within 50-60 years beyond the licensed life for operation (which may include the term of a revised or renewed license) of any reactor to dispose of the commercial high-level waste and spent fuel originating in such reactor and generated up to that time.

Dated at Rockville, Maryland, this – day of -----, 2009.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,

Secretary of the Commission