

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 U.S. Nuclear Regulatory Commission (NRC or Commission) 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). It also finds reasonable assurance that sufficient mined geologic repository capacity will be available for disposal of spent fuel when necessary.

DATES: The rule is effective on **(INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER)**.

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

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

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Federal Rulemaking Website: Public comments and supporting materials related to this final rule can be found at <http://www.regulations.gov> by searching on Docket ID: **NRC-2008-0404**.

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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 this 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, which were developed through a generic rulemaking proceeding that 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 do not need to be considered in proceedings on applications for these 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. It also stated that it would consider undertaking a reevaluation when the pending repository development and regulatory activities had run their course or if significant and pertinent unexpected events occurred that raise substantial doubt about the continuing validity of the Waste Confidence findings (See 64 FR 68005; December 6, 1999).

The Proposed Rule

In 2008, the Commission decided that the generic resolution of appropriate issues that might be raised in licensing proceedings on anticipated combined operating license (COL) applications for new reactors would enhance the efficiency of the COL proceedings; waste confidence was one of these issues. Prior to NRC's original Waste Confidence proceeding, the Commission 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" (42 FR 34391, 34393; July 5, 1977). It has been 20 years since the last formal review of the Waste Confidence findings, so the Commission is revisiting the findings to address their continuing validity, given the passage of time since the last update to the Waste Confidence Decision, and given the upcoming COL proceedings. The Commission is now updating and revising the 1990 Waste Confidence Decision and Rule.

On October 9, 2008 (73 FR 59551), 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*. In the same issue of the *Federal Register*, the Commission proposed a conforming amendment 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

After evaluating the public comments on the proposed rule and update to the Waste Confidence Decision, 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 Decision (published separately in this issue of the *Federal Register*). The Commission is revising two of its findings:

Finding 2: The Commission finds reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary.

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 to include a time frame for the safe storage of SNF:

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 to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary.

Public Comments

The NRC received 158 comment letters, including a late-supplemental comment from the Attorney General of New York, as well as two form letters sent by 1,990 and 941 commenters, respectively. Many of the comment letters contained multiple comments on the proposed rule, 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 update to the Waste Confidence Decision. 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) because they believe that the revisions to the findings and amended rule 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. But as the Commission discusses in its comment responses, neither the Waste Confidence Rule nor the Decision allow for the issuance of a license; applicants for an NRC license must comply with the relevant NRC regulations before they can receive a license. And the Waste Confidence Decision and Rule satisfy a portion of the NRC’s NEPA obligations—those associated with the environmental impacts after the end of license life. In this rulemaking, the Waste Confidence Decision is the Environmental Assessment—the NRC’s NEPA analysis—that provides the basis for the generic determination of no significant environmental impacts reflected in the rule (10 CFR 51.23).

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 Commission is also revising the final rule to remove the time frame from the second sentence of 10 CFR 51.23(a); instead the Commission has incorporated the language adopted in Finding 2: that sufficient repository capacity will be available to dispose of spent nuclear fuel and high-level waste when necessary.

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) that consider the potential environmental impacts of storage of spent fuel during the term of the license. Because of the generic determination in § 51.23(a) 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 or whether ultimate disposal will be available, is not considered in individual NPP licensing reviews. The EA supporting this 30-year extension of the generic determination and the finding of reasonable assurance of a safe, timely disposal facility 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 preparing an EA and FONSI, has not complied with the procedural requirements for a FONSI, which include the preparation of an EA and the identification of all the documents that the FONSI is based on. 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; these are reports concerning the safety and security of spent fuel pool storage issued by Sandia National Laboratories (SNL) and the National Academy of Sciences (NAS), which are either Classified, Safeguards Information (SGI), or Official Use Only—Security Related Information. Although these documents cannot be released to the public, redacted or publicly available summaries are available. A redacted version of the SNL study can be found in ADAMS (ADAMS Accession Number ML062290362) and the unclassified summary of the NAS report can be purchased or downloaded for free by accessing the NAS website at: http://www.nap.edu/catalog.php?record_id=11263. No other non-public documents are referenced in the Waste Confidence Update.

A number of commenters argued that NRC's revisions of its Waste Confidence findings and temporary storage rule do not comply with the holding of the U.S. Court of Appeals for the Ninth Circuit 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 ISFSI. These commenters believe that an attack is reasonably foreseeable and therefore subject to a NEPA review. Despite the outcome of *Mothers for Peace*, the Commission has adhered to its traditional position (outside of the Ninth Circuit) that 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). And in 2009, the U.S. Court of Appeals for the Third Circuit 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). Even so, the EA for this update and rulemaking includes a discussion of terrorism that NRC believes satisfies the Ninth Circuit's holding in *Mothers for Peace*.

Some commenters believe that this revision of the Waste Confidence findings violates the Atomic Energy Act of 1954 (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 above, NRC’s revised Waste Confidence findings and revised generic determination are not licensing decisions, but merely generically resolve certain discrete issues in licensing proceedings. 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 include 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, below, restates its reasons for revising Findings 2 and 4.

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—whether Finding 2 should contain a target date, 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 time frame involves too much speculation about future events and that licensed storage of SNF will be safe no matter what the time needed. Several states; State organizations; Nye County, Nevada; environmental groups; and other commenters want the Commission to retain a time frame. In general, they believe that, in the absence of a time frame,

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 time frame is necessary to provide an incentive for the Federal Government to meet its responsibilities for the disposal of spent fuel and HLW.

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 update to the Waste Confidence Decision. Further, as discussed in Finding 2, the Commission has confidence that sufficient mined geologic disposal capacity will be available when necessary. However, there are issues beyond the Commission's control, including the political and societal challenges of siting a HLW repository, that make it premature to predict a date when a repository will become available. The Commission has therefore decided not to adopt a specific time frame in Finding 2 or its final rule. Instead, the Commission is expressing its reasonable assurance that a repository will be available "when necessary."

The Commission believes that this standard accurately reflects its position, as discussed in the analysis supporting Finding 2, that a repository can be constructed within 25–35 years of a Federal decision to do so. Further, the Commission continues to have confidence, as expressed in Findings 3 and 5, that safe and sufficient onsite or offsite storage capacity is available and will be available until a repository becomes available for disposal. In addition, revised Finding 4 supports at least 60 years of safe and environmentally sound onsite or offsite storage beyond the end of the licensed life for operation of any nuclear power reactor. It necessarily follows from these findings that the Commission has reasonable assurance that sufficient repository capacity will be available before there are safety or environmental issues associated with the SNF and HLW that would require the material to be removed from storage and placed in a disposal facility.

In short, the Commission can express its reasonable assurance that disposal capacity will become available when necessary and that there will be sufficient safe and environmentally sound storage available for all of the SNF until this disposal capacity becomes available.

Safe Storage of Spent Fuel

This update reflects the Commission's increased 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 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 August 19, 1988 (53 FR 31651) 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 EA 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. Subsequently, the 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 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; (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 (conducted both before and after the 1990 update to the Decision and Rule), NRC's extensive experience in regulating spent fuel storage and ISFSIs and in certifying dry cask storage systems, 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), and an additional 20 years of experience with safely storing spent fuel 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, the Department of Energy (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 still pending, the current Administration and DOE leadership have made it clear that they oppose the construction of the YM repository. The

President's 2010 budget proposal stated that the "Administration proposes to eliminate the Yucca Mountain repository program." *Terminations, Reductions, and Savings: Budget of the U.S. Government, Fiscal Year 2010, Page 68* available at <http://www.gpoaccess.gov/usbudget/fy10/pdf/trs.pdf> (last visited on November 9, 2010).

On March 3, 2010, DOE filed a Notice of Withdrawal with the Atomic Safety and Licensing Board (Board) that is presiding over the YM licensing proceeding (ADAMS Accession Number ML100621397). On June 29, 2010, the Board denied DOE's motion; and on June 30, 2010, the Secretary of the Commission invited the parties to file briefs regarding whether the Commission should review, reverse, or uphold the Board's decision (ADAMS Accession Numbers ML101800299 and ML101810432). The Commission has not yet issued its decision.

Recent events, coupled with its ongoing analysis of the target date approach used in Finding 2, have caused the Commission to reconsider its position regarding the use of a target date in Finding 2. As discussed above, the Commission continues to have confidence that a repository can be constructed in 25–35 years, but it is uncertain whether the social and political consensus necessary for a successful repository program will be reached in the near future. Therefore, the Commission has adopted the approach proposed in the Additional Question for Public Comment, and has removed the target date from Finding 2 (73 FR 59561; October 9, 2008).

This modification to Finding 2 does not mean that the Commission is endorsing indefinite storage of HLW and SNF; Finding 4 has not been changed, and only considers "at least 60 years" of storage beyond the licensed life for operation. If the expiration of this time nears without the availability of a repository, the Commission will revisit the Waste Confidence Decision and Rule. The Commission's current Waste Confidence Decision and Rule reflect the NRC's best information and judgment. But the longer-term rulemaking and study of storage for more than 120 years that the Commission directed the staff to start in its Staff Requirements Memorandum (SRM) (SRM-SECY-09-0090, M100915; September 15, 2010) will result in the

Commission having more information in a timely fashion should additional adjustments to the Waste Confidence Decision and Rule prove necessary.

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 YM 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.

For example, if a new repository program starts in 2025, it could be reasonable to expect that a repository would become available by 2050–2060. But the Commission cannot express reasonable assurance in 2025 as the start date for a new program because it is not possible to predict when a political and social consensus will be reached. The Commission believes that there is no specific 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 after a Federal decision to construct a repository.

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 well after 2025, then this prediction can no longer be maintained (the analysis supporting Finding 2 indicates that if the political and societal roadblocks were resolved today, a repository would not be available until at least 2035–2045). According to NRC's "High-Value Datasets," there are 14 reactor operating licenses that will expire between 2012 and 2020 and an additional 36 licenses that will expire between 2021 and 2030. NRC High-Value Datasets, <http://www.nrc.gov/public-involve/open.html#datasets> (last visited November 9, 2010).

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 by the NRC or the Atomic Energy Commission (the NRC's predecessor agency) and have been permanently shut down. *Id.* 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 well after 2025. Further, the Commission has concerns about the use of the target date approach used in proposed Finding 2 and the proposed rule and has decided not to adopt this approach. A target date requires the Commission to have reasonable assurance of when a repository will become available; but, because the Commission cannot predict when this societal and political acceptance will occur, it is unable to express reasonable assurance in a specific target date for the availability of a repository. The Commission does, however, believe that a repository can be constructed within 25–35 years of a Federal decision to construct a repository.

Given the ongoing activities of the Blue-Ribbon Commission on America's Nuclear Future, events in other countries, the viability of safe long-term storage for at least 60 years

(and perhaps longer) after reactor licenses expire, and the Federal Government's statutory obligation to develop a HLW repository, the Commission has confidence that a repository will be made available well before any safety or environmental concerns arise from the extended storage of spent nuclear fuel and high-level waste. In other words, a repository will be available when necessary. For these reasons, 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 reflect its reasonable assurance that sufficient repository capacity will be available when necessary.

As stated above, this is not a safety finding, and the amendment is made solely to be consistent with an assumption that a repository will not be available until 25–35 years after the resolution of the political and societal issues associated with a repository. As explained in the update to the Waste Confidence Decision, the Commission's confidence that a repository will be available when necessary rests on a number of factors, including (for example) the options being considered by the Blue-Ribbon Commission, the time it likely will take to site, license, and build a repository, the Federal Government's commitment, by law (the Nuclear Waste Policy Act) to dispose of spent fuel, and developments in other countries.

Summary of Amendments by Section

The Commission is adopting the proposed revision, with some changes. The rule is being revised to more closely track the language in final Findings 2 and 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 that the 60-year storage period is related to the Commission's expectation that sufficient repository capacity will be available when necessary. Accordingly, the added sentence provides that there is "reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary."

Section 51.23(a) is also 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 expectation that sufficient mined geologic repository capacity will be available to dispose of the commercial HLW and spent fuel originating in any reactor when necessary.

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 the generic determination in 10 CFR 51.23 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 ISFSIs. 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 *Federal Register*. 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 document.

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 (OMB) 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. 552 and 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 to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary.

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Dated at Rockville, Maryland, this 9th day of December, 2010.

For the Nuclear Regulatory Commission.

/RA/

Annette L. Vietti-Cook,
Secretary of the Commission.