[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 30, 37, 40, 51, 70, 72, 140

[NRC-2025-1370]

RIN 3150-AL56

Modernizing Materials Licensing

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its regulations for byproduct, source, and special nuclear material to modernize the NRC's materials licensing requirements. This proposed action is responsive to several executive orders and the NRC's mission to enable safe, efficient, and reliable licensing. These changes are deregulatory in nature and include streamlining the process for existing and certain new applicants to enable bringing power to the grid. Unnecessary regulations are being eliminated, and reporting and recordkeeping requirements are being changed. The NRC is proposing several other changes to clarify regulations that are confusing or ambiguous to make the overall licensing process more efficient. Finally, regulations governing the storage of radioactive material are being amended to accommodate new and advanced nuclear fuels.

DATES: Comments must be submitted electronically using https://www.regulations.gov by 11:59 p.m. eastern time on **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: Submit your comments, identified by Docket ID NRC-2025-1370, at https://www.regulations.gov. If your material cannot be submitted using https://www.regulations.gov, call or email the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document for alternate instructions.

Do not include any personally identifiable information (such as name, address, or other contact information) or confidential business information that you do not want publicly disclosed. All comments are public records; they are publicly displayed exactly as received, and will not be deleted, modified, or redacted. Comments may be submitted anonymously.

Follow the search instructions on https://www.regulations.gov to view public comments.

You can read a plain language description of this proposed rule at https://www.regulations.gov/docket/NRC-2025-1370. For additional direction on obtaining information and submitting comments, see "Obtaining Information and Submitting Comments" in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Andy Imboden, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-287-9055, email: andy.imboden@nrc.gov.

SUPPLEMENTARY INFORMATION:

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I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2025-1370 when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and search for Docket ID NRC-2025-1370.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or

by email to PDR.Resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time, Monday through Friday, except Federal holidays.

- **Public Meeting:** The NRC may conduct a public meeting to describe the proposed amendments and answer questions from the public on the proposed rule. If the NRC determines it will hold a public meeting, NRC will publish a notice of the location, time, and agenda of the meeting on the NRC's public meeting website within 10 calendar days of the meeting. Stakeholders should monitor the NRC's public meeting website for information about the public meeting at: https://www.nrc.gov/public-involve/public-meetings/index.cfm.

B. Submitting Comments

Comments must be submitted using https://www.regulations.gov by 11:59 p.m. eastern time on **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].** Please include Docket ID NRC-2025-1370 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at https://www.regulations.gov as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Executive Order 14300: Ordering the Reform of the Nuclear Regulatory Commission

On May 23, 2025, President Donald J. Trump signed Executive Order (E.O.) 14300, "Ordering the Reform of the Nuclear Regulatory Commission." This rulemaking addresses Section 5, "Reforming and Modernizing the NRC's Regulations," of E.O. 14300, which directs the NRC to undertake a review and wholesale revision of its regulations and guidance documents as guided by the policies set forth in section 2 of the E.O.

III. Background

The NRC is proposing rulemaking in response to recent E.O.s. Some of the proposed changes would also address issues that have historically been raised as subjects of discussion between the NRC and its stakeholders. The following discussion provides background information on some of the most significant changes proposed by this rulemaking.

First, the changes proposed to title 10 of the *Code of Federal Regulations* (10 CFR) part 37, "Physical Protection of Category 1 And Category 2 Quantities of Radioactive Material," have been the topic of prior discussions between the NRC and its stakeholders. These have been addressed, in large part, through other regulatory

processes, but not yet by rulemaking. The issue of creating exemptions from physical protection requirements for large and robust structures was the subject of an unresolved petition for rulemaking (PRM).

On June 12, 2014, the NRC received a PRM submitted by the Nuclear Energy Institute (NEI) (ADAMS Accession No. ML14199A570), requesting that the NRC amend 10 CFR part 37 to clarify and expand current exemptions in § 37.11 for when the physical protection measures for category 1 and category 2 quantities of radioactive material do not apply to a power reactor licensee. NEI stated that both licensees and the NRC have encountered significant problems with § 37.11 which can only be remedied through a rulemaking. NEI indicated that the exemption in § 37.11(c) only addresses waste material, and therefore large components and non-waste material stored in robust structures that present a similar or lower risk for theft or diversion are not exempt from the 10 CFR part 37 requirements. The petition was docketed as PRM-37-1 and published for comment on October 28, 2014 (79 FR 64149). On June 12, 2015, the NRC published a notice in the *Federal Register* (80 FR 33450) stating that it had reviewed the petition and related public comments and agreed to consider the issues raised in the rulemaking process.

Recognizing the low risk associated with large components containing category 1 or category 2 quantities of radioactive material and the storage of category 1 or category 2 quantities of radioactive material in robust structures, the NRC issued Enforcement Guidance Memorandum (EGM)-14-001, “Interim Guidance for Dispositioning 10 CFR Part 37 Violations with Respect to Large Components or Robust Structures Containing Category I or Category 2 Quantities of Material at Power Reactor Facilities Licensed under 10 CFR Parts 50 and 52,” dated March 13, 2014 (ADAMS Accession No. ML14056A151). This EGM documented the NRC’s policy of enforcement discretion for power reactor licensees subject to 10 CFR part 73, “Physical Protection of Plants and

Materials," whose security programs did not separately address the requirements of 10 CFR part 37. EGM-14-001 provided guidance for dispositioning violations associated with large components (e.g., steam generators, steam dryers, turbine rotors, reactor vessels, reactor vessel heads, reactor coolant pumps, and shielding blocks) containing category 1 and category 2 quantities of radioactive material, or category 1 and category 2 quantities of radioactive material contained in robust structures, such as mausoleums at power reactor facilities licensed under 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." However, EGMs are intended to provide temporary guidance and are typically put in place for relatively short periods of time.

While the NRC actively pursued the 10 CFR part 37 rulemaking, it issued an Interim Enforcement Policy (IEP) on August 23, 2024 (89 FR 68083), allowing continued enforcement discretion until the underlying technical issue could be resolved through rulemaking or other regulatory action. IEPs provide an avenue to establish policy, allowing them to be in place for longer periods of time than EGMs and providing for increased clarity because they are approved by the Commission as a policy matter. IEPs also offer enhanced openness because they are incorporated in the Enforcement Policy and published in the *Federal Register* to provide broad awareness among stakeholders. The NRC would continue to exercise enforcement discretion using this IEP and would not issue a notice of violation pending completion of the final rulemaking. The changes proposed in this rulemaking now seek to address this issue and propose an additional clarifying change to 10 CFR part 37.

The proposed amendments to 10 CFR part 70, "Domestic Licensing of Special Nuclear Material," also arise from E.O.s and historical discussions between the NRC and its stakeholders. In response to E.O. 14301, "Reforming Nuclear Reactor Testing at the Department of Energy," and E.O. 14299, "Deploying Advanced Nuclear Reactor

Technologies for National Security," issued May 23, 2025, the U.S. Department of Energy (DOE) established a pilot program to expedite the testing of advanced nuclear reactor designs under DOE authority outside of the national laboratories and a corresponding Fuel Line Pilot Program. The pilot fuel lines would establish a domestic nuclear fuel supply chain for pilot reactors for non-commercial purposes.

The NRC is working closely with the DOE on developing a process to allow for efficient leveraging of the DOE authorization in the NRC licensing process. This rulemaking is one part of that process. This rulemaking recognizes that the construction and operation of pilot fuel lines authorized by the DOE for non-commercial purposes would be exempt from the requirements for an NRC license under the regulations in 10 CFR part 70. The proposed rulemaking would also allow for streamlined commercial licensing of these fuel lines in the future by focusing the potential future NRC review on parts of the application where aspects of the DOE authorization do not satisfy NRC regulations and statutory provisions as they apply to commercial operations. This would allow the NRC's review of future applications under this program to focus on any potential differences rather than revisiting areas already addressed by the DOE authorization that are consistent with the NRC's regulatory and statutory requirements.

The proposed changes to streamline and clarify the licensing of spent fuel reprocessing facilities using 10 CFR part 70 are responsive to a long history of discussion between the NRC and its stakeholders. As determined by a gap analysis performed by the NRC staff in 2009 (SECY-09-0082, "Update on Reprocessing Regulatory Framework—Summary of Gap Analysis" (ADAMS Accession No. ML091520280)), gaps were found to exist between the current regulations and requirements that would be necessary to provide for adequate protection of public health and safety, the common defense and security, and the environment, for the unique aspects of spent fuel reprocessing facilities. Subsequently, from 2013 to 2016, the NRC

assessed the quantitative risk associated with reprocessing facility accidents in support of a limited-scope rulemaking. However, due to a lack of industry plans for a reprocessing facility license application, the rulemaking was withdrawn in 2021. The gaps, however, remain, and because of these gaps, an applicant seeking such a license may need to request exemptions, and may require additional license conditions, to address issues specific to reprocessing technology. The proposed amendments aim to reduce regulatory burden by addressing some of the procedural gaps and thereby providing a clearer licensing framework for applications for spent fuel reprocessing facilities under 10 CFR part 70.

Finally, with respect to spent fuel storage, the proposed changes are also responsive to issues that have been a topic of discussion between NRC and its stakeholders. The regulations in 10 CFR part 72, “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste,” have undergone significant revisions over the past decades. Currently the regulations for spent fuel storage have separate technical regulatory requirements spread across several subparts of 10 CFR part 72 for specific licensees and Certificate of Compliance (CoC) holders with a common set of performance specifications (e.g., dose limits and criticality control) and quality assurance (QA) requirements.

Significant changes to 10 CFR part 72 were first described in a final rule published in July 1990 (55 FR 29181) and were a result of the 1987 amendment to the Nuclear Waste Policy Act. This rulemaking added subparts K and L which included requirements for General Licensees (GLs) (subpart K) and approval of dry spent fuel storage systems (subpart L). However, the regulatory changes described in the July 1990 and October 1999 (64 FR 56121) rulemakings led to confusion regarding the applicability of 10 CFR part 72 between the Specific Licensees, GLs, and CoC holders,

which led to the addition of § 72.13 in August 2000 (65 FR 50606). The changes proposed in this rulemaking seek to address this confusion and to provide additional clarity to the regulations.

The changes to 10 CFR part 72 also reduce burden by streamlining the certification process for dry storage cask designs by removing the rulemaking process for cask approvals. They also seek to streamline the change process for 10 CFR part 72 by codifying the discretion granted in an August 2025 IEP (ADAMS Accession No. ML25224A097), which allows the NRC staff to exercise enforcement discretion for certain GL violations of §§ 72.48 and 72.212. Lastly, they seek to streamline the licensing of advanced reactor technologies by clarifying definitions for spent fuel and descriptions of damaged fuel to accommodate advanced reactor fuels.

IV. Discussion

The NRC is proposing this rulemaking as part of the NRC's response to E.O. 14300, "Ordering the Reform of the Nuclear Regulatory Commission," which directs the NRC to modernize its regulations and enable the delivery of safe, abundant nuclear energy to the American people. This proposed rule addresses topics in Section 5, "Reforming and Modernizing the NRC's Regulations" of E.O. 14300 and additional deregulatory changes consistent with the NRC's mission to enable safe, efficient and reliable licensing. Because this proposed rule would cover a wide-ranging set of issues, the following discussion is organized by subject area.

A. Reducing Facility Construction Timelines

The proposed rule would make changes to the NRC's regulations for constructing byproduct, source, and certain fuel cycle facilities to safely enable bringing power to the grid. Historically, stakeholders have identified areas where the regulations are not clear and could cause unnecessary delays during critical pre-application stages

of facility construction. Prior efforts have been made to increase clarity on individual licensing actions, and this rule would clarify and accelerate overall construction timelines for many materials facilities.

Specifically, this proposed rule addresses the construction of byproduct, source, and fuel cycle facilities by making identical changes in 10 CFR parts 30, 40, and 70. Stakeholders have identified that provisions in the current regulations indicate that commencement of construction prior to approval of the license is "grounds for denial," which has raised concern among applicants proposing to construct facilities. The NRC is proposing to clarify the language across its materials facility construction regulations, including §§ 30.33(a)(5), 40.32(e), and 70.23(a)(7) to explain that construction prior to approval may proceed but it occurs at the applicant's own risk. The proposed change in § 70.23(a)(7) from "grounds for denial" to "at its own risk" would not apply to uranium enrichment facilities or spent fuel reprocessing facilities. Pursuant to statutory requirements in the Atomic Energy Act of 1954, as amended (AEA), uranium enrichment facilities and production facilities may not commence construction prior to the issuance of a license. Accordingly, language has been proposed to clarify this, including a new § 70.23(a)(8), which addresses uranium enrichment facilities specifically, and retains the existing "grounds for denial" language.

Additionally, current regulations require submittal of certain materials facility applications at least nine months prior to commencement of construction. This nine-month period is not a statutory requirement and does not substantially improve the NRC application review process and is therefore proposed for elimination from §§ 30.32(f), 40.31(f), and 70.21(f). Instead, the NRC proposes to find that pre-application engagement is more effective at achieving the goals of increased awareness of details of construction than the fixed nine-month period. Applicants would be expected to continue providing updated construction schedule information as it becomes available to

facilitate effective communication and coordination with NRC regional inspection and project management staff throughout the duration of the construction project.

While the NRC is not currently proposing a change to the definition of “construction” in 10 CFR part 70; the NRC is seeking public input on whether to expand the definition in the final rule to add flexibility by further clarifying what the term construction does not include. The NRC is seeking feedback on what specific items should be added to the definition.

Other proposed changes to regulatory provisions, such as revisions to § 70.21(f), and conforming changes to §§ 30.32(f) and 40.31(f), are intended to avoid confusion and delay by simplifying the requirements for the environmental report. Additionally, the proposed rule would streamline the process by directing applicants to NRC’s environmental regulations in 10 CFR part 51, “Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions.”

B. Clarifying Physical Protection Regulations

The NRC is proposing a new exemption for large components and storage of material in robust structures containing category 1 or category 2 quantities of radioactive material. This new exemption would be consistent with the enforcement discretion described in EGM-14-001 and the subsequent IEP. To accomplish this, this proposed rule would make changes to § 37.5, “Definitions,” by adding definitions for "large component" and "robust structure.” The new definitions proposed in this rulemaking are identical to those that have been successfully used for several years under EGM-14-001 and the subsequent IEP and are therefore appropriate for inclusion in § 37.5. Large components, due to their size and weight, pose a low risk of theft or diversion as they are not easily moved without cranes, rigging, and heavy equipment. In addition, large components are not easily concealed during loading or when they are in motion, and the amount of time required to steal or divert these large components is such that it is

reasonable to expect that the licensee would timely detect these activities. Radioactive materials contained within robust structures can only be accessed using heavy equipment to remove structural components or large access blocks that weigh 2,000 kilograms or more. Access into these robust structures requires significant execution time.

The proposed rule would also include a new exemption in § 37.11, “Specific exemptions.” Specifically, the NRC is proposing to add § 37.11(d), which provides an exemption for large components and robust structures containing category 1 or category 2 quantities of radioactive material if the licensee meets the following conditions: (1) has identified in writing those large components and robust structures that contain category 1 or category 2 quantities of radioactive material; (2) has an approved 10 CFR part 73 security plan or a written 10 CFR part 37 security plan that provides security measures adequate to detect, assess, and respond to actual or attempted theft or diversion, as well as a written analysis that considers the time needed to accomplish these activities given the proximity and mobility of the equipment available for those large components and robust structures; and, (3) has a written analysis documenting that the measures do not decrease the effectiveness of the 10 CFR part 73 security plan.

Typically, routine work activities, observation by licensees’ authorized individuals located within or close to these robust structures, or observation by licensees’ authorized individuals, are conducted in accordance with § 73.55(i)(5)(ii), “Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage – Detection and assessment systems – Surveillance, observation, and monitoring.” These requirements make it likely that licensees would detect actual or attempted theft and diversion considering the time needed to accomplish these activities.

Additionally, the NRC is proposing to revise the rule language regarding the exemption for radioactive waste in § 37.11(c). The existing language lacks clarity about

which types of radioactive waste are exempted from 10 CFR part 37. Revising this language would provide licensees with greater regulatory certainty in implementing this provision.

C. Enabling Pilot Fuel Lines

The NRC is proposing regulations to establish a streamlined NRC review process for applications for 10 CFR part 70 materials facility licenses where the facilities were previously authorized under the DOE's Reactor Pilot Program, including DOE pilot fuel lines. In addition to defining a pilot fuel line within § 70.4, this rulemaking would also amend § 70.11 to add a new subsection (d) to reflect the exemption for the construction and operation of pilot fuel lines authorized by the DOE for non-commercial purposes from the requirements for an NRC license.

The NRC is proposing to clarify its regulations to streamline the NRC's licensing of potential commercial operations for such a facility. Because a non-commercial DOE-authorized pilot fuel line may eventually want to convert to commercial operations, thereby requiring an NRC license, proposed amendments to § 70.22(r) would also clarify the additional information such an applicant for an NRC license would need to provide to the NRC. The proposed amendments provide that an applicant for an NRC license for a facility that was originally constructed and operated as a DOE authorized pilot fuel line would need to describe in its application how it meets all applicable NRC regulations and statutory requirements, including how the DOE authorization satisfies them in part or whole. The NRC may request references and excerpts from the documented safety analyses and other supporting safety and security-related documents for the authorization, or may request the documents in full, if the information is needed for the NRC to make its safety and security findings.

This rulemaking would also amend § 70.23 to add a new paragraph (a)(15) to identify the finding the NRC must make to approve a 10 CFR part 70 license application

for a facility that is also a DOE authorized pilot fuel line. Specifically, the new paragraph would require the NRC to find that the application meets all relevant statutory provisions and appropriate regulations, including any necessary conditions that were not satisfied by DOE's authorization, before issuing a license.

D. Streamlining Spent Fuel Reprocessing Facility Licensing

The NRC is also proposing to update its regulations to explicitly include a licensing process for spent fuel reprocessing facilities in 10 CFR part 70. The NRC has historically expected a commercial reprocessing facility to meet the definition of "production facility" in section 11 of the AEA, and as supplemented by § 50.2, because reprocessing can be used to separate plutonium isotopes and produce special nuclear material (SNM) in quantities that could affect radiological health and safety and be of significance to common defense and security. Under existing regulations, the NRC could license a spent fuel reprocessing facility under 10 CFR part 50 or 10 CFR part 70. However, 10 CFR part 70 does not explicitly include spent fuel reprocessing facilities or address production facilities. This proposed rule clarifies that spent fuel reprocessing facilities, including those that meet the definition of production facility, may be licensed under 10 CFR part 70, and this proposal would provide an alternative licensing process to the two-step process (Construction Permit and Operating License) in 10 CFR part 50. Regardless of the licensing pathway chosen, the NRC would assess the specific safety and security risks of each application and ensure that they are appropriately addressed, resulting in an equivalent level of safety and security.

In a gap analysis performed in 2009 (SECY-09-0082), the NRC staff identified 23 gaps between existing regulations and requirements that would be necessary to provide for adequate protection of public health and safety, common defense and security, and environmental protection for the unique aspects of spent fuel reprocessing facilities. Given that, under the current framework, neither 10 CFR part 50 nor 10 CFR part 70

fully address these gaps, an applicant seeking a license under either part may need to request exemptions, and may require additional license conditions, to address issues specific to the applicant's proposed reprocessing technology. The proposed revisions to 10 CFR part 70 would address some of these gaps and streamline the licensing process for spent fuel reprocessing facility applications submitted under 10 CFR part 70, limiting the need for as many potential license conditions and exemptions.

The proposed framework for including spent fuel reprocessing facility licensing in 10 CFR part 70 would include proposed requirements to ensure the statutory requirements for production facilities in the AEA are met. For spent fuel reprocessing facilities that are production facilities, these statutory mandates would include submitting proposed technical specifications (AEA § 182a.) and a proposed operator licensing program (AEA § 107), complying with the necessary financial protection provisions (AEA § 170), and complying with the ineligibility of foreign control provisions (AEA § 103d.). An application for a spent fuel reprocessing facility that meets the definition of a production facility under the AEA would also be required, consistent with the AEA, to be submitted under oath or affirmation; include inspections, tests, analyses, and acceptance criteria (ITAAC) (AEA § 185b.); and be subject to a mandatory hearing (AEA § 189a.(1)(A)).

Under this proposed rule, applicants for spent fuel reprocessing facilities that do not meet the definition of production facility would not be required to meet all the statutory provisions that apply to production facilities. Although the November 2011 draft regulatory basis document (ADAMS Accession No. ML112081702) that the NRC staff developed and issued as an enclosure to SECY-11-0163, "Reprocessing Rulemaking – Draft Regulatory Basis and Path Forward" (ADAMS Accession No. ML113210386), contemplated that all spent fuel reprocessing facilities would need to meet all AEA requirements, that document assumed that all reprocessing facilities would be production facilities. In accordance with the directive of E.O. 14300, this proposed

rulemaking is designed to allow maximum flexibility. Due to the limited information available regarding potential future spent fuel reprocessing facilities, this proposed rule is written to take into consideration possible applicants that do not meet the definition of a production facility.

The NRC is not aware today of a reprocessing technology that would not meet the definition of a production facility. However, this proposed rule would build regulatory flexibility for a hypothetical reprocessing facility that does not meet the definition of production facility, ITAAC and technical specifications would not be required; the application would not have to be submitted under oath or affirmation; and there would not be a mandatory hearing. ITAAC would not be required because proposed § 70.32(l) would require that the Commission verify through inspection that the facility has been constructed in accordance with the license thereby accomplishing the safety component provided by ITAAC. Additionally, the current system of demonstrating safety under subpart H to 10 CFR part 70 (e.g., the performance of the integrated safety analysis, identification of items relied on for safety (IROFS), and the application of management measures) as supplemented by this proposed rule, would provide the basis for a finding of reasonable assurance of adequate protection of public health and safety without the application of technical specifications. Finally, for applications for spent fuel reprocessing facilities that are not production facilities, a mandatory hearing would not be required, but the public would be afforded an opportunity for a hearing.

Due to the lack of available information on the designs of reprocessing facilities that may not be production facilities, this proposed rule does extend some of the statutory requirements that apply to spent fuel reprocessing facilities that meet the definition of production facilities to reprocessing facilities that are not production facilities, including the requirement to have an operator licensing program (if controls, as defined, are being manipulated), to meet indemnification and foreign ownership and control

requirements, and the prohibition against construction at risk. The exemption process, as provided in § 70.17, would allow a non-production reprocessing facility applicant the opportunity to demonstrate why certain requirements should not apply to them. The NRC is seeking specific comment on the proposed regulations regarding spent fuel reprocessing facilities that are not production facilities, among other topics, in section V of this proposed rule.

The framework presented in this proposed rule provides a licensing pathway consistent with all applicable statutory requirements while providing for the more complex regulatory gaps identified in SECY-09-0082 and any other gaps that may be applicable to the proposed spent fuel reprocessing facility technology to be addressed on a case-by-case basis. Thus, the proposed framework does not seek to address the specific safety requirements that may be determined necessary to provide for reasonable assurance of adequate protection of public health and safety, common defense and security, and the environment, for different reprocessing technologies. Rather, the proposed framework is flexible and technology-neutral, allowing applicants to provide the information necessary to address the regulatory gaps as they apply to their design. This also provides flexibility to the NRC in its licensing process, as appropriate. The NRC is seeking specific comment on this approach, and on whether the NRC should instead specify in the regulation the regulatory gaps necessary for discussion in the application.

Many of the proposed changes to subpart A of 10 CFR part 70, “General Provisions” are additions that are necessary to establish the basis for the spent fuel reprocessing licensing framework. Notably, the proposed revisions include expansion of the “Purpose” section to address issuance of spent fuel reprocessing licenses, including operator licenses for spent fuel reprocessing facilities (§ 70.1). The proposed rule would

also add directions for where applicants should submit spent fuel reprocessing facility and operator license applications (§ 70.5(b)(1)(viii) & (ix)).

The proposed rule would also include new definitions throughout § 70.4. A definition is proposed for “Spent fuel reprocessing facility” because, while the term “reprocessing” is used throughout the NRC’s regulations, this term is not currently defined. The proposed definition clarifies that a spent fuel reprocessing facility may also meet the definition of a production facility, as that term is defined in the AEA and supplemented by § 50.2. This term is intended to be interchangeable with various other similar terms used throughout the NRC’s regulations such as “fuel reprocessing plant,” “reprocessing facility,” “irradiated fuel reprocessing operations,” or “irradiated fuel reprocessing plant.” Given the different terminology used throughout its regulations, the NRC may proceed with a term other than “spent fuel reprocessing facility” in the final rule.

A definition is also proposed for “Combined license,” to reflect the addition of a combined licensing pathway for spent fuel reprocessing facilities that are production facilities, which is different than the two-step licensing process in 10 CFR part 50 currently available for production facilities. This combined license for spent fuel reprocessing facilities that are production facilities would include the necessary statutory requirements under the AEA, including requirements for technical specifications, an operator licensing program, identifying and meeting ITAAC, and a mandatory hearing, among others. Given the potential complications that arise with this term being defined previously in other NRC regulations, the NRC may proceed with a term other than “combined license” in the final rule.

A definition is also proposed to reflect the new “Operator license” required for spent fuel reprocessing facilities. The proposed rule would require all spent fuel reprocessing facility applicants to include in the license application a description of an

operator licensing program if certain thresholds are met. A definition of “Control” has been proposed to provide this threshold for when an operator licensing program is required. If no controls exist, an operator licensing program would not be required. On December 19, 2008, NEI addressed a similar high consequence threshold for controls in a white paper entitled “Regulatory Framework for NRC Licensed Recycling Facility” (ADAMS Package Accession No. ML083590114). Although the NRC is currently proposing this high consequence outside the controlled area threshold as the threshold for controls, the NRC is asking for specific public feedback on this threshold and is considering other options to ensure the appropriate threshold is applied.

Changes proposed throughout subpart D of 10 CFR part 70, “License Applications,” provide details regarding spent fuel reprocessing applications, including filing requirements, detailed information regarding the contents of spent fuel reprocessing applications, and requirements necessary for approval of spent fuel reprocessing applications. Many of the changes proposed in subpart D of 10 CFR part 70 align with AEA statutory requirements for a production facility, and other changes update the provisions to include spent fuel reprocessing application requirements in a manner consistent with other 10 CFR part 70 licensees.

The proposed changes to the filing instructions in § 70.21 include some minor proposals to simplify the regulations and eliminate duplication, such as combining the filing directions previously in § 70.21(a)(1) and (2) into a simplified § 70.21(a)(1); and including provisions addressing statutory requirements, such as the addition of § 70.21(a)(4), which would require a combined license application for a spent fuel reprocessing facility to be submitted under oath or affirmation consistent with the AEA. Changes also include a proposal to revise the specific cross-reference in § 70.21(e) to the NRC’s fee regulations in 10 CFR part 170, “Fees for Facilities, Materials, Import and Export Licenses, and Other Regulatory Services Under the Atomic Energy Act Of 1954,

as Amended.” Currently, § 70.21(e) requires each application for a special nuclear material license to be accompanied by the fee prescribed in § 170.31. Rather than referencing a specific section, § 70.21(e) would be revised to require each application to be accompanied by the fee prescribed in 10 CFR part 170. This change would aid with the durability of cross-references in the regulation should service fees for spent fuel reprocessing applicants be assessed under a different section of 10 CFR part 170. For example, depending on the application, spent fuel reprocessing applicants could be assessed under § 170.21.

Changes are also proposed throughout § 70.22 to update the provisions to include information that would be necessary for an application for a spent fuel reprocessing facility. The changes include a proposal to amend § 70.22(a)(7) to require applicants to include management and storage of radioactive waste, including high level waste, in the description of equipment and facilities associated with the applicant’s spent fuel reprocessing facility. This regulatory change is necessary because spent fuel reprocessing facilities have the potential to generate significant quantities of waste, which may need to be managed and stored on site for a period of time, compared to other fuel facilities licensed under this part. Therefore, addressing this specific subject in the application in detail will be necessary for licensing decisions. The NRC is seeking specific comments on this approach and whether additional changes are needed to this part, or potentially other parts, of NRC regulations to address waste issues at spent fuel reprocessing facilities.

Additionally, the NRC is proposing amendments to § 70.22 to require all applications for spent fuel reprocessing facilities to include information consistent with requirements for other similar applicants or required by statute. Under the proposed § 70.22, an application for a spent fuel reprocessing facility should include: a description of the applicant's program for control and accounting of SNM (§ 70.22(b)); provisions for

liability insurance (specific amounts to be determined on a case-by-case basis) (§ 70.22(n)); and a proposed operator licensing program for the manipulation of controls (§ 70.22(o)). In the case of an applicant for a spent fuel reprocessing facility that is a production facility, applicants would also have to provide proposed technical specifications and proposed ITAAC, consistent with the AEA statutory requirements (§ 70.22(p)). In section V of this proposed rule, the NRC seeks specific feedback on the approach presented for technical specifications, and on a potential optional means the NRC is considering for addressing technical specifications in the final rule.

The proposed changes would also require all spent fuel reprocessing facility applications to include a QA program that complies with appendix B to 10 CFR part 50 (§ 70.22(f)). This is the only set of regulations in 10 CFR part 50 that are being proposed to apply directly to spent fuel reprocessing facilities licensed under 10 CFR part 70. The NRC is seeking specific feedback on the proposal of requiring a QA program in accordance with appendix B of 10 CFR part 50 and is considering the option of applying a graded approach to QA requirements that would be tailored to the specific technology.

The NRC is also proposing the addition of § 70.22(q) to reflect the likely need for an application for a spent fuel reprocessing facility to include additional information, including requested exemptions, and proposed license conditions deemed necessary to provide for reasonable assurance of adequate protection of public health and safety, common defense and security, and the environment. This provision is intended to provide the applicants with the flexibility needed to address the technical gaps that currently exist in the NRC's regulations regarding specific spent fuel reprocessing technologies. Although 10 CFR part 70 provides a good baseline for such applications, there is a gap between the baseline technical requirements in 10 CFR part 70 and the requirements that may be necessary to demonstrate reasonable assurance of adequate protection of public health and safety, common defense and security, and the

environment depending upon the specific technology proposed. These gaps have been documented in SECY-09-0082. Consequently, depending upon the specific facts of the design and technology proposed for a spent fuel reprocessing facility, an applicant seeking a license under 10 CFR part 70 may need to request exemptions, and may need to propose license conditions to address issues specific to the proposed reprocessing technology. If an applicant determines that a gap does not apply to its facility, the applicant could provide the technical basis for that conclusion in its application. To make the NRC's license application acceptance and review process more efficient, the applicant is encouraged to identify the applicable gaps and describe to the NRC how it plans to address them in the application during pre-application engagement with the NRC. Regarding this broad approach where applicants are to identify and address case-specific applicable gaps depending on the technology proposed, the NRC is also considering amending the regulations to, instead, identify in the regulatory text the specific gaps that need to be addressed in spent fuel reprocessing facility applications. The NRC is specifically requesting feedback on this alternative approach in section V of this proposed rule.

Amendments proposed to § 70.23 would require, consistent with licensed facilities of similar risk, a spent fuel reprocessing application to include an adequate emergency plan (§ 70.23(a)(11)) and an acceptable QA Plan, developed in accordance with appendix B of 10 CFR part 50 (§ 70.23(a)(13)), in order to be approved.

Amendments proposed to this section would also require spent fuel reprocessing applications to include adequate financial protection prior to approval of an application (§70.23(a)(12)). Accordingly, a conforming amendment would be made to 10 CFR part 140, "Financial Protection Requirements and Indemnity Agreements," to clarify that spent fuel reprocessing facility licensees required to enter into an indemnification agreement would also be required to pay an indemnity agreement fee to the

Commission (§ 140.7). All licensees of spent fuel reprocessing facilities that are production facilities are statutorily required to enter into an indemnification agreement. A licensee for a spent fuel reprocessing facility that is not a production facility may also be required to enter into an indemnification agreement if the Commission, acting in its discretion, so determines. An additional conforming amendment is proposed to 10 CFR part 140 to clarify that all spent fuel reprocessing facility licensees would be required to have and maintain liability insurance in the type and in the amounts the Commission considers appropriate (§ 140.13c).

A new subsection in § 70.23 is also proposed to provide clarity regarding the need for a spent fuel reprocessing facility applicant to adequately address all relevant statutory provisions and appropriate regulations, including any necessary conditions, for approval of an application (§ 70.23(a)(14)). This additional regulatory provision is intended to provide a clear avenue for addressing all necessary issues, or gaps, on a case-by-case basis that may not have been addressed otherwise, given the specific technology involved. Just as the proposed addition of § 70.22(q) is intended to provide flexibility and ensure all necessary components are included as contents of a spent fuel reprocessing facility application, this proposed provision is intended to be a parallel provision, providing flexibility in addressing necessary items for approval of a spent fuel reprocessing facility application. This provides a technology-neutral and flexible framework allowing for case-by-case licensing of spent fuel reprocessing facility applications to capture technical variations in the proposed reprocessing designs.

The proposed amendments in this subpart also include a clarification that spent fuel reprocessing facilities cannot undertake construction at risk (§ 70.23(a)(8)). For spent fuel reprocessing facilities that are production facilities (defined as combined licenses in this proposed rule), this is consistent with the AEA § 185b. This proposed rule also applies this restriction on construction at risk to spent fuel reprocessing facilities

that are not production facilities because all spent fuel reprocessing facilities would have a higher risk profile compared to existing fuel facilities because of the presence of fission products. In addition, because of the safety significance of equipment and structures related to spent fuel reprocessing facilities, the NRC would want to inspect these as they are being constructed or installed, and only after it has approved the license application. Applicants for spent fuel reprocessing facilities that do not meet the definition of production facility may request an exemption from this requirement if they have the necessary basis to support the request.

The proposed rule also includes changes to § 70.23a to capture the AEA requirement for a mandatory hearing for a combined license application for a spent fuel reprocessing facility that is a production facility. For spent fuel reprocessing facilities that are not production facilities, a mandatory hearing is not required; however, the public would be afforded an opportunity for a hearing.

Finally, the proposed addition to § 70.25(a)(3) requires an applicant for a spent fuel reprocessing facility to submit a decommissioning plan as described in paragraph (e) of the section, consistent with other similar 10 CFR part 70 applicants. The NRC is requesting specific comments on whether the decommissioning funding provisions in § 70.25 are sufficient, as is, to address spent fuel reprocessing facility decommissioning, or if, instead, specific spent fuel reprocessing facility decommissioning funding provisions should be added to 10 CFR part 70.

The proposed amendments to subpart E of 10 CFR part 70, “Licenses,” include amendments to comply with AEA statutory requirements, including changes to reflect that a combined license for a spent fuel reprocessing facility will not be issued until the mandatory hearing requirement has been satisfied (§ 70.31(e)); and that a combined license issued under this part will include the required ITAAC sufficient to provide

reasonable assurance that the facility has been constructed and will be operated in conformity with the license (§ 70.31(f)).

The proposed revisions would also require spent fuel reprocessing facility licenses to include a condition that a facility will not be able to operate until it has been verified through inspection that it has been constructed in accordance with the requirements of the license prior to operation (§ 70.32(l)). This provision is intended to capture the current practice where certain licenses are conditioned on an operational readiness review prior to being allowed to operate. The proposed amendments also add an additional condition for a combined license for a spent fuel reprocessing facility that is a production facility which would limit operation until the Commission finds that the prescribed ITAAC have been met, as required by the AEA (§ 70.32(m)). While both § 70.32(l) and (m) make it clear that a facility would not be allowed to operate until the licensee has demonstrated that the facility has been constructed consistent with the application, for combined licenses for spent fuel reprocessing facilities, the language added mirrors the statutory language and process.

Amendments are also being proposed to add conditions to address operator licenses at spent fuel reprocessing facilities. Under this proposed rule, an operator licensing program would be required of all spent fuel reprocessing facilities (both production and non-production) that meet the threshold provided in the proposed definition of “control.” The NRC is requesting specific feedback on this proposal, and particularly on the threshold provided in the proposed rule.

The proposed changes implementing operator licensing programs include a new subsection (§ 70.32(n)) to reflect that a license for a spent fuel reprocessing facility would include the conditions necessary to determine the qualifications of operators, and would limit the ability for anyone who is not a licensed operator to manipulate controls,

as defined in § 70.4, except in cases where a non-licensed operator manipulates the controls under the direction and in the presence of a licensed operator.

Because the NRC has not developed specific regulations or guidance on these topics as they would apply to spent fuel reprocessing facilities, outside of the definitions of “Operator license” and “Control” added to § 70.4, the proposed rule envisions applicants proposing an operator licensing program as part of the application (§ 70.22(o)); the NRC adding the necessary conditions to the license to require adherence to the approved operator licensing program (§ 70.22(n)); and NRC’s approval of operator licenses that meet the requirements of the approved operator licensing program (§ 70.23(a)(16)). The NRC is also considering the option of, instead, establishing a general license for licensed operators of spent fuel reprocessing facilities. The NRC is asking a specific question to elicit feedback on this topic.

Changes proposed to this subpart would also prevent spent fuel reprocessing facility licenses from being issued to an entity that is foreign-owned, controlled, or dominated, or if issuance of the license would be inimical to the nation’s common defense and security. This proposed change is necessary to conform with statutory licensing requirements for production facilities in the AEA and is also being applied to spent fuel reprocessing facilities that do not meet the definition of production facility given the uncertainty regarding the technical details of potential non-production facilities and the risks involved. Applicants that do not meet the definition of production facilities may request an exemption from this requirement if they have the necessary basis to support the request.

Amendments are also proposed in subpart G of 10 CFR part 70, “Special Nuclear Material Control, Records, Reports and Inspections,” and subpart H, “Additional Requirements for Certain Licensees Authorized to Possess a Critical Mass of Special Nuclear Material.” The proposed amendments would require effluent monitoring

reporting of spent fuel reprocessing facilities, consistent with other 10 CFR part 70 licensees (§ 70.59). Additionally, the proposed changes would amend § 70.60, the "Applicability" section of subpart H of 10 CFR part 70, to include the potential need for additional requirements for spent fuel reprocessing facilities, beyond those described in § 70.61 through § 70.76, reflecting the increased risk that such a facility may pose compared to other fuel cycle facilities licensed under 10 CFR part 70. Amending § 70.60, as proposed, is intended to allow the NRC to move forward with spent fuel reprocessing facility licensing under 10 CFR part 70, using the existing subpart H of 10 CFR part 70 requirements as a baseline and supplementing, with additional conditions, as necessary, without the development of more specific safety requirements. The NRC will assess applications on a case-by-case basis to ensure an applicant adequately identifies and controls radiological and NRC-regulated chemical hazards and accidents at a reprocessing facility, and limits any resulting risks to the public, workers, and the environment.

Finally, this proposed rule would also update the authority citation to 10 CFR part 70 to add citations to the provisions of the AEA that provide the NRC the authority to make these proposed amendments.

E. Modernizing Fuel Cycle Facility Licensing

The proposed rule would also make specific changes to the NRC's regulations in 10 CFR part 70 in several areas, with the overall goal to reduce burden on licensees and improve licensing efficiency while continuing to ensure safety. Taken together, these changes would lower the regulatory burden on fuel cycle licensees and applicants and therefore enable bringing more power to the grid efficiently.

The proposed rule would accelerate licensing of plutonium processing and fuel fabrication plants and reduce the regulatory burden on applicants by incorporating lessons learned from the licensing of the Mixed Oxide Fuel Fabrication Facility at the

DOE's Savannah River site in South Carolina. Specifically, the NRC is proposing to eliminate the regulations that establish a two-step licensing process for these facilities that requires both that the Commission approve construction of the principal structures, systems, and components, and the requirement for a description and safety assessment of the design bases of the principal structure, systems, and components. These requirements in current § 70.23(a)(8) and § 70.23(b), predate the addition of subpart H of 10 CFR part 70, and the integrated safety analysis (ISA) now required, and with those additional requirements, these items are no longer justified. This change is also consistent with the one-step licensing process proposed for spent fuel reprocessing facilities. These regulations contribute to significant burden on the applicant without adding to the safety of the facility given the addition of subpart H of 10 CFR part 70.

The amendments also seek to reduce the burden on licensees by addressing an issue that has historically been an item of discussion between the NRC and its stakeholders, namely the determination of whether structures must be designated as IROFS. The NRC does not require all new fuel cycle facility structures to be designated as IROFS because IROFS are strictly developed as a result of facility-specific ISAs. If an applicant's ISA determines that a safety function provided by a structure is needed to adequately protect workers and the public, then normally that structure is designated an IROFS. The proposed revisions to the regulations would reduce the need for designating a structure as IROFS when the safety function of the structure is limited to providing adequate protection against natural phenomena-initiated accident sequences (i.e., structural stability) and the safety function is maintained under the licensee's management measures program. Under current regulations, licensees must request exemptions to avoid being required to designate certain structures as IROFS. This proposal would reduce unnecessary regulatory burden.

Specifically, this proposed rule would introduce an alternative from the designation of certain structures as IROFS as otherwise required under § 70.61(e). The proposed alternative in § 70.61(e)(2) would apply specifically to structures that credit solely their structural stability safety function (i.e., no structural failure) to meet the performance requirements of § 70.61(b), (c), and (d), and only in the context of accident sequences initiated by natural phenomena hazards (NPH). This alternative would not apply if the structure is credited for other safety functions, such as confinement or containment. Additional changes to the regulations related to this alternative were made to §§ 70.64(a)(1), 70.64(a)(8), 70.65(b)(6), and the revised reporting requirements in appendix A to 10 CFR part 70.

This alternative would not relieve licensees from the obligation to demonstrate through accident sequence analyses that the credited structures meet the applicable performance requirements of § 70.61(b), (c), and (d). Licensees seeking to apply this alternative would be required to submit a technical basis as part of their license application. The NRC will continue to evaluate how NPH are addressed in the license application on a case-by-case basis, recognizing that NPH-initiated accident sequences are inherently facility-specific, depending on factors such as geographic location, facility design, and process configuration.

While the NRC is not prescribing a prescriptive methodology for demonstrating compliance with the performance requirements in § 70.61, it is anticipated that structures designed in accordance with applicable industry standards and engineering practices may provide an adequate basis for demonstrating that the risks associated with NPH-initiated accident sequences are appropriately limited. For new facilities or new processes at existing facilities, the requirements of § 70.64 continue to apply. The baseline design criteria outlined in § 70.64 generally provide an acceptable set of initial design safety considerations; however, they may not be sufficient in all cases to ensure

adequate safety for all new processes and facilities. The ISA process is intended to identify any additional safety features or changes to the design criteria necessary to demonstrate that the risks from NPH-initiated accident sequences are appropriately limited. To ensure continued safety, the credited structural aspects must remain available and reliable, consistent with the requirements for management measures in § 70.62(d). This proposed rule change is consistent with the NRC approach outlining an acceptable method for licensees to request an exemption from designating certain structures as IROFS (See NRC letter dated February 14, 2025, ADAMS Accession No. ML24241A119).

To support the implementation of this alternative, the rule would clarify new reporting requirements for structures that are credited with meeting the performance requirements of § 70.61(b), (c), and (d), but are not designated as IROFS. These new proposed reporting requirements are less burdensome than those applicable to IROFS, thereby reducing the overall regulatory burden on licensees. The reporting requirements for structures that are credited with meeting the performance requirements of § 70.61(b), (c), and (d), but are not designated as IROFS are tailored to their structural stability safety function and the risks from NPH-initiated accident sequences, thereby allowing the NRC to maintain appropriate oversight while also reducing regulatory burden. Additional regulatory relief is provided for structures whose sole credited safety function is to prevent structural failure during NPH-initiated accident sequences. Such structures would no longer be subject to the additional requirements associated with sole IROFS designation.

Furthermore, the NRC is proposing changes intended to enhance regulatory clarity and support efficient implementation of the alternative framework. This would include an amendment to add a new criterion to § 70.72 to clarify when prior Commission approval is not required for changes to structures that are credited with

safety functions under § 70.61 but are not designated as IROFS (§ 70.72(c)(3)). This amendment would allow changes to the structure as long as the structural stability safety function is preserved. Additionally, amendments would add a clarification to § 70.65 to require identification of these structures in the application (§ 70.65(b)(6)); and clarifications to § 70.64 to identify which baseline design criteria apply to these structures.

The proposed rule also seeks to reduce the burden on applicants by proposing revisions to § 70.24 to relieve licensees authorized to possess certain isotopes of SNM in the quantities specified in § 70.24(a) from the requirement to maintain a criticality accident alarm system, provided they can demonstrate that a criticality accident is not credible based on the laws of physics. This change would be consistent with the basis previously used to grant case-by-case exemptions from criticality accident alarm system requirements. There is not a compelling safety basis to require criticality accident alarm monitoring in instances where such an accident is not credible based on the laws of physics. The demonstration that a criticality accident is not credible may apply to specific areas within a facility or to the entire facility. If the demonstration covers the entire facility, the licensee would also be relieved of the requirement to maintain emergency procedures related to the criticality accident alarm system specified in § 70.24.

Several reporting and recordkeeping requirements in 10 CFR part 70 would be amended in this rule to reduce regulatory burden and improve clarity. The proposed amendments include consolidating reporting requirements from §§ 70.50, 70.52, and 70.74 into the existing appendix A to 10 CFR part 70, “Reportable Safety Events.” This consolidation is intended to streamline the reporting process, reduce burden, eliminate redundancy, and improve consistency and understanding across licensees. The NRC is also proposing to remove or relax some reporting requirements in this rulemaking. As a

result of these proposals, the only remaining provision in proposed § 70.50 is a reference directing licensees to appendix A.

In this proposal, § 70.50(b)(1) would be relocated to appendix A(c)(5)(iv) and amended to eliminate the requirement to report unplanned contamination events when they occur in a restricted area that is inaccessible to the public, was already controlled as a Radioactive Materials Area within a building before the event occurred, and where the release is contained within that area. The proposed provision would also require that trained personnel and appropriate equipment be readily available to manage contamination. This change only eliminates reporting requirements reflecting exemptions that NRC has already determined to be safe and granted to at least two fuel facilities and does not significantly increase risk to the public, workers, or the environment.

Section 70.50(b)(3) would be relocated to appendix A(c)(7) and amended to limit reporting of unplanned medical treatment involving spreadable radioactive contamination to cases where treatment occurs at an offsite medical facility. Medical treatment that can be managed onsite is not considered significant enough to warrant NRC reporting.

Section 70.50(c)(2) would be relocated to appendix A(d) and amended to extend the deadline for follow-up reports from 30 to 60 days. This additional time to submit reports does not negatively impact safety.

Reporting requirements in appendix A(b)(2) would be relocated to appendix A(c)(2) and amended to allow licensees to use site-specific definitions of likelihood criteria for reporting failures or degradation of IROFS. In its NRC-approved license application, a licensee may have justified likelihood thresholds for reporting that differ from the likelihood definitions used to demonstrate compliance with the performance requirements of § 70.61 based on the potential accident sequences in the ISA and considering the overall facility risk (e.g., number of accident sequences that exceed the performance requirements in § 70.61). Allowing flexibility for site-specific thresholds for

reporting that deviate from the performance requirements of § 70.61 is expected to reduce the reporting burden for some licensees, codify flexibilities that have resulted from the NRC accepting different definitions of likelihood for safety analyses across existing fuel cycle facilities, and result in no impact to equipment or procedures used to protect health and minimize danger to life or property.

The NRC is also proposing to relocate several other reporting requirement provisions to appendix A with minor edits and clarifications, including proposed appendix A(a)(1), (e)(1), and (e)(4). Relocating the requirement in current § 70.50(c)(1) to proposed appendix A(e)(1), and amending it to allow licensees to submit reports using any method that ensures compliance with the required reporting timeframe, rather than mandating telephone reporting, would reduce regulatory burden on licensees and improve internal consistency within the regulation. Relocating information from §70.50(c)(2)(iii) to proposed appendix A(d)(iii), with edits to remove the phrase “to prevent occurrence of similar or identical events in the future,” would reduce regulatory burden by eliminating language that implies a guarantee of future event prevention, which is not directly relevant to reporting requirements. While corrective actions are important, their effectiveness in preventing future events cannot be assured and should not be a required component of the reporting criteria.

The NRC staff is also proposing to relocate some reporting requirements with no substantive changes (proposed appendix A(b), (c)(6), (c)(8), (d), (e)(2), (e)(3)) and to remove the concurrent reporting requirement currently found in appendix A(c). This deletion reduces regulatory burden by removing the requirement to report events or situations—related to public or onsite personnel health and safety, or environmental protection—for which a news release is planned or notification to other government agencies has been or will be made. The NRC staff has determined that the burden

placed on licensees to make these concurrent and follow-up reports is not justified by the associated risk.

Several changes have also been proposed to §70.32 to reduce regulatory burden and provide licensees with additional flexibility in reporting timelines, particularly for programmatic changes that do not reduce the effectiveness of safety and security plans. These changes would extend the timeframes for submitting updates to the NRC without prior Commission approval, while maintaining appropriate oversight and ensuring continued protection of public health and safety. Specifically, the time allowed to report changes to the Material Control and Accounting program without prior Commission approval in §70.32(c)(2)(i) has been increased from 2 to 4 months when the changes pertain to uranium-233, uranium-235 enriched to 20 percent or more, or plutonium (excluding plutonium containing 80 percent or more by weight of plutonium-238). For changes involving uranium enriched to less than 20 percent in uranium-235 or plutonium containing 80 percent or more by weight of plutonium-238, the reporting timeframe in §70.32(c)(2)(ii) has been extended from 6 to 12 months. These changes reduce unnecessary administrative burden while preserving appropriate regulatory oversight based on material type and associated risk.

Similarly, the timeframe for reporting changes to the physical protection plan for SNM in §70.32(d) would be increased from 2 to 12 months, provided the changes do not decrease the effectiveness of the plan. The same extension—from 2 to 12 months—would apply to changes made to the security plan under the same condition, as proposed in §70.32(e). These changes would extend the timeframes for submitting updates to the NRC without prior approval, while maintaining appropriate oversight and ensuring continued protection of public health and safety. Annual reporting, coupled with the robust inspection program, provides confirmation of the continued safety and security of the facilities. These revisions collectively reduce regulatory burden by aligning

reporting requirements with the safety significance of the changes, allowing licensees more time to implement and document non-safety-significant updates without compromising regulatory intent or public safety.

The proposed revisions also include other burden-reducing initiatives. Proposed changes would clarify that information submitted with applications for renewal of licenses under 10 CFR part 70 should be narrowly focused on the scope of renewal, limiting the submission of redundant or unnecessary information (§ 70.73). Similarly, changes proposed to § 70.42(d)(3) clarify that, for emergency shipments involving transfer of special nuclear material, the follow-up written communication required in the regulation can be accomplished through multiple methods, as outlined in the section.

Finally, the proposed rule also seeks to delete several ambiguous or obsolete requirements contained in 10 CFR part 70 to improve regulatory clarity. Some sections of 10 CFR part 70 are obsolete because they pertain to facilities or cases that are no longer relevant and are highly unlikely to be relevant in the future. This includes the proposed deletion of § 70.1(d) which refers to 10 CFR part 76, “Certification of Gaseous Diffusion Plants.” These plants are no longer operational and it is unlikely for there to be any gaseous diffusion plants in the foreseeable future. The NRC also proposed to sunset 10 CFR part 76 as part of its sunset rule (90 FR 55699) in response to E.O. 14270, “Zero-Based Regulatory Budgeting to Unleash American Energy.” Additionally, § 70.24(a)(2) refers to the timelines required for the implementation of subpart H of 10 CFR part 70 and specifically applies to persons licensed prior to December 6, 1974. The dates in those timelines have passed, these regulations are no longer necessary as there are no licensees for which this regulation still applies and there will be no licensees for which it will apply in the future.

F. Modernizing Spent Fuel Licensing

The proposed rule would make specific changes to the NRC's regulations in 10 CFR part 72 in several areas, with the overall goal to reduce burden on licensees and CoC holders and modernize the NRC's spent fuel licensing regulations while continuing to ensure reasonable assurance of adequate protection of public health and safety. One change to 10 CFR part 72 proposed in this rule is to streamline the process for certifying spent fuel storage cask designs, which currently involves a safety review of the application, along with a rulemaking to amend § 72.214 to codify NRC approval of each individual CoC. The agency has almost 25 years of data indicating that these rules are uncontroversial, as evidenced by the fact that the NRC has received very few adverse comments on CoC rulemakings. Eliminating the rulemaking requirement would eliminate unnecessary resource expenditure from the regulatory process without impacting the depth and rigor of the NRC's safety review and certification of the cask design. NEI suggested removing the rulemaking process from cask certifications in their letter dated February 10, 2025 (ADAMS Accession No. ML25058A144). The NRC has streamlined the § 72.214 rulemaking process in recent years. Rulemaking is now developed in parallel with the NRC's safety evaluation, and the overall timeframe is significantly reduced. However, agency resources continue to be spent to develop a rulemaking package and savings may be achieved by eliminating the rulemaking that codifies the CoCs.

This proposed change remains consistent with Section 133 of the Nuclear Waste Policy Act because the Commission continues to establish, by rule, the procedures for licensing the approved technology-dry cask storage-under a general license method of approval of individual cask designs (e.g., by rulemaking). The NRC fulfilled this obligation in its 1990 rulemakinq by establishing a general license and cask certification process. The proposed amendment does not alter the safety review or the conditions of use under the general license: rather, it only removes the ministerial step of codifying

each CoC in § 72.214. CoCs will continue to be issued following a rigorous safety review under the procedures for licensing the dry-cask technology in existing regulatory requirements and will be publicly accessible on NRC's website. This approach preserves transparency and public confidence while improving efficiency.

The NRC does not envision this change impacting the process for CoC applicants as the NRC's safety review of the application would remain the same. Currently, the NRC completes a safety review of the CoC or CoC amendment application, and, if the safety review determines that the CoC or CoC amendment meets NRC regulatory requirements, then the NRC begins the rulemaking process to officially codify the CoC into the listing in § 72.214. Under the proposed rule, rather than the CoC being issued upon codification in § 72.214, the NRC would, instead, issue the CoC after the necessary safety findings are made. After issuance, the approved CoC would then be listed on NRC's website at https://www.nrc.gov/waste/spent-fuel-storage/designs. The direction in § 72.214 would be revised to reflect that issued CoCs will be listed on the website.

The changes proposed in this rule to the CoC issuance process also include a proposed modification to the NEPA compliance provisions in 10 CFR part 51. The existing categorical exclusion from NEPA for CoC reviews pertains to CoC reviews conducted through the rulemaking process. This proposed rule modifies that categorical exclusion so that it would apply to CoCs issued under this proposed process, as the action—review of a CoC application—is the same.

Additionally, the NRC does not envision this change impacting the process for GL adoption of NRC-approved cask designs. GLs will continue to be limited to use of only approved and issued CoCs or CoC amendments. Minor edits are also proposed for § 72.212(b)(3) and (b)(5)(i) to remove the reference to the list of approved CoCs, but the regulations will continue to require that storage of spent fuel under a general license

must be in conformance with an approved CoC or CoC amendment. The proposed changes would only impact where the GLs would find the list of final NRC approved CoCs available for their use, which would be on the referenced website rather than listed specifically in § 72.214. The proposed revision of § 72.214 would not change prior NRC CoC approvals; all NRC approvals of CoCs and CoC amendments (past, current, and future) are currently listed and would continue to be listed on that website.

Notwithstanding the Commission's previously stated reservations in the 2001 denial of a petition for rulemaking (66 FR 63964), the NRC is not proposing to add an opportunity for a hearing to the CoC issuance process, because the issuance, amendment, or revision of a CoC under the new proposed process would not trigger an opportunity for a hearing under AEA § 189a. Section 189a.(1)(A) of the AEA, provides, in relevant part, that in any proceeding for the granting or amending of any license or construction permit, the Commission must grant a hearing upon the request of any person whose interest may be affected by the proceeding. However, cask approval, which results in a certificate, is neither a license nor a license amendment. A certificate, as defined in § 72.3, means “the certificate issued by the Commission that approves the design of a spent fuel storage cask in accordance with the provisions of subpart L of this part.” While the CoC issued by the NRC approves the design of the spent fuel storage cask, the CoC alone does not give permission to use the CoC to store spent fuel. Further, CoCs are not issued to NRC licensees but rather to cask vendors who apply for a CoC and then become CoC holders, once approved. By contrast, a license, or license amendment, is an approval issued under the licensing provisions of the AEA (§§ 53, 57, 62, 63, 81, 82, 101, 103, 104, 107, and 109), all of which concern some activity involving byproduct, source or special nuclear material or production or utilization facilities. The CoC only approves of a design of a CoC system, and does not, by itself, provide the CoC holder with the authority to possess regulated material. Indeed, the NRC has

historically maintained a distinction between certificates and licenses not only in 10 CFR part 72, but also in 10 CFR part 71.

The staff also proposes revisions to specific sections of § 72.48, including the addition of clarifying language, to create additional flexibility in the requirements for evaluation of changes that result in a departure from a “method of evaluation” (MOE). The proposed changes would maintain the focus of NRC licensing activities on the most safety significant issues. Other proposed changes would reduce burden by eliminating redundancy in evaluations performed by a GL for changes initiated by the CoC holder and codify the regulatory relief provided in the “Interim Enforcement Policy for Enforcement Discretion for General Licensee Adoption of Certificate of Compliance Holder-Generated Changes,” issued on August 15, 2025 (90 FR 39308). Requirements would be modified to specify that only site-specific changes initiated by the GL need to be evaluated utilizing the § 72.48 change process. GLs may accept CoC holder § 72.48 changes without re-performing the § 72.48 evaluation for themselves when there are no site-specific changes needed. Further, the rule would implement changes to the § 72.48 criterion, “method of evaluation,” to eliminate the need for license amendments for MOE changes that have low safety significance.

The NRC is proposing to allow changes to the elements of an MOE that would result in “no more than a minimal increase” in the applicable safety margins. Currently, only changes to elements that have a decrease in safety margin or essentially the same results are allowed, which has the effect of allowing only incremental changes to be made without prior NRC approval. Using a “no more than a minimal increase” approach gives more change authority to licensees under § 72.48 that would allow additional, minimal, increases in safety margin while minimizing the risk of substantial changes that could challenge established safety limits.

New MOEs used in the safety analyses or to establish the design bases, that have not been approved by the NRC, have the potential to significantly affect the margins to safety limits. For changing from an MOE described in the final safety analysis report to another MOE not approved by the NRC, the staff is proposing a graded approach based on the current important to safety (ITS) categories for storage. Currently, only MOEs that were previously reviewed and approved by the NRC for the intended application may be used without prior NRC review. In the proposed rule, only new or different MOEs that specifically affect ITS Category “A” and “B” structures, systems, and components (SSCs), the results of which, when applied, would be critical to, or would have a major impact on, safe operation of the affected SSC, would require prior NRC review and approval. Additionally, the new definition would retain the language that allows use of MOEs that have been previously approved for an intended application.

Through its review of applications, the NRC has determined that there is little or no confirmatory analysis for compliance necessary for those items that have a minor impact on safety. As a result, the NRC is recommending focusing NRC reviews only on those methods that have an effect on SSCs that are critical to safe operation or have a major impact on safety. Therefore, for new MOEs that only affect ITS Category “C” or “not important to safety” components and the results of which, when applied, would only have a “minor impact on safety”, as defined in Table 2 of NUREG 6407, “Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety” (ADAMS Accession No. ML15127A114), prior NRC approval would not be required.

The proposed changes also include a provision that would reduce the regulatory burden on the part of licensees and CoC holders by eliminating § 72.48(d)(2), which currently requires the submission of reports associated with § 72.48 evaluations. The

NRC has determined that there is no risk to removing the reporting requirement and that the current practices to maintain records, as required by the approved QA programs and specific regulations, provides reasonable assurance that licensees are documenting and maintaining the required evaluation records.

The NRC is also proposing to clarify the definition for spent fuel and the description of damaged fuel in 10 CFR part 72 to accommodate advanced reactor fuels and streamline licensing of advanced reactor technologies. This would provide operational flexibility to new and advanced fuel designers, including transportable microreactors, in the storage of spent fuel generated by proposed advanced reactor designs. These changes are deregulatory in nature as they revise the narrowly defined characteristics for spent fuel and descriptions of damaged fuel in 10 CFR part 72.

One such change is in the definition of spent fuel which currently states that spent fuel needs to be “aged for at least one year” prior to storage. The staff has determined that this requirement was not based on risk insights, and the NRC has confidence in the programs currently established at existing independent spent fuel storage installations (ISFSIs) to characterize and safely store spent fuel, regardless of how long it has been “aged.” Under the proposed definition, irradiated fuel must first be permanently removed from a reactor, and a determination made that the fuel will not be reused in a reactor or subjected to reprocessing. Only after such a determination is the material designated as “spent fuel,” consistent with the intent of regulatory classifications under 10 CFR part 72 and related guidance. A conforming amendment is also proposed to § 72.2 to remove the “aged for at least one year” requirement. The proposed definition also aligns with the definition for "spent nuclear fuel" found in § 2.1105. Similarly, the regulatory language in § 72.122(h)(1) for describing damaged fuel has language specific to light water reactors. The proposed revisions to this section make the requirement technology-neutral so that it may also be applied to advanced reactor designs.

Several changes proposed in the 10 CFR part 72 regulations would reduce the burden of unnecessary reporting requirements and relax the timelines for written reports. The NRC is proposing to revise § 72.42(b) to decrease the time for the submittal of renewal applications for specific licensees to be 30 days before expiration, consistent with the requirements in § 72.240(b) for CoC renewals. A common set of license terms, CoC terms, and renewal requirements would simplify and clarify the regulatory requirements. Another proposed change to § 72.44(d)(3) would eliminate the regulatory requirement for annual reporting for licensee effluent monitoring programs. This information would be collected and retained by the licensee and subject to inspection. Notification requirements of first storage of spent fuel under the general license letter submittal requirement would be reduced from 90 days before cask loading to 30 days before cask loading in § 72.212(b)(1). Similarly, in § 72.212(b)(2), the cask registration letter submittal requirement would increase from 30 days from cask loading to 90 days from cask loading. These changes would provide a reduction in burden on licensees.

V. Specific Requests for Comments

The NRC is seeking advice and recommendations from the public on the proposed rule. The NRC is particularly interested in comments and supporting rationale and basis from the public on the following questions. In addition to the general discussion in section IV, additional context is provided for certain questions in order to help the public comment on these issues.

Issue 1: Definition of Construction

The NRC is not proposing changes to the definition of construction in this proposed rule but is considering expanding the definition in the final rule to add flexibility by further clarifying what the term construction does not include. The NRC is seeking

feedback on what specific items should be added to the definition. That is, what specific items should not be considered “construction”? Please provide the basis for your response.

Issue 2: Spent Fuel Reprocessing Facility Regulations

Spent Fuel Reprocessing Facility – Regulatory Gap Identification

The NRC seeks comments on spent fuel reprocessing facility regulatory gap identification. The NRC is proposing to amend § 70.22, “Contents of applications,” to require applicants to identify and address any regulatory gaps relevant to their proposed design as part of the license application. As discussed in section IV, this would include applicable gaps in 10 CFR part 70 that were previously identified in the enclosure to SECY-09-0082 and further discussed in SECY-11-0163. Under the proposed approach, applicants are to identify and address the gaps that are applicable to their application based on the proposed technology and risks. Applicants may address these gaps by proposing license conditions or, where appropriate, by requesting exemptions.

The NRC is considering an alternative option of addressing the gaps more specifically by adding a provision in the final rule that would require an applicant to include in its application information and analyses regarding the previously identified specific gaps. For example, a new subsection of § 70.22 could require applicants to include in their spent fuel reprocessing facility application information and analyses pertaining to issues identified as gaps, such as risk considerations, effluent monitoring, and general design criteria, as the gaps may pertain to the specific technology proposed.

The NRC is seeking input on this alternative approach. If the NRC were to proceed, instead, with the alternative approach, please identify which of the gaps should be specifically identified in the regulatory text and why. Additionally, the NRC is also seeking feedback on whether additional regulatory gaps exist—beyond those identified

in SECY-09-0082—that may apply to the reprocessing technologies currently under consideration, including novel technologies that were not considered in the original gap analysis. If so, please identify each additional gap and provide a justification for why it should be included in list of gaps required to be addressed as part of the license application. Similarly, the NRC is seeking input on whether any gaps identified in SECY-09-0082 are no longer applicable to spent fuel reprocessing facilities. Please explain the basis for your response.

Spent Fuel Reprocessing Facility – Decommissioning Funding

The NRC seeks comments on the proposed provisions for spent fuel reprocessing facility decommissioning funding. The NRC is proposing to apply the existing decommissioning funding requirements to spent fuel reprocessing facilities rather than proposing new decommissioning funding requirements specific to these facilities. However, the NRC is considering whether requirements specific to spent fuel reprocessing facilities should be added to 10 CFR part 70 in this rulemaking. Both 10 CFR parts 50 and 70 contain specific funding requirements that a licensee must meet for decommissioning nuclear power plants and fuel cycle facilities, respectively.

The NRC is specifically seeking feedback on whether the decommissioning funding regulations in 10 CFR part 70 are sufficient for spent fuel reprocessing facilities. Should the NRC, instead, provide specific decommissioning funding regulations for these facilities? If additional funding requirements are warranted, please indicate what the NRC should consider in developing these specific decommissioning funding regulations and why. Also consider whether the NRC should consider a new provision similar to § 70.38(a) that applies to spent fuel reprocessing facilities.

Spent Fuel Reprocessing Facility – Waste Issues

The NRC seeks comments on spent fuel reprocessing facility waste issues. The proposed rule seeks to address the handling and onsite storage of radioactive waste generated by a spent fuel reprocessing facility through the existing and proposed requirements in 10 CFR part 70, including those in subpart H, and in 10 CFR parts 20 and 72. The NRC is also considering additional provisions in the final rule in either 10 CFR part 70 or 10 CFR part 72, if necessary, to adequately address the safe handling and onsite storage of radioactive waste at spent fuel reprocessing facilities. If there are additional changes to the regulations needed to address the safety of radioactive waste and enable efficient licensing of a spent fuel reprocessing facility in a technology-neutral way, please provide the changes necessary, including specifically which regulations should be changed and why.

Spent Fuel Reprocessing Facility – Quality Assurance Program

The NRC seeks comments on spent fuel reprocessing facility quality assurance programs. The NRC is proposing that each application for a spent fuel reprocessing facility license include a QA program that fully complies with the criteria outlined in appendix B of 10 CFR part 50. This proposal aligns with existing requirements for plutonium processing and fuel fabrication plants and supports the objective of ensuring high confidence in the availability and reliability of IROFS in these higher-risk facilities, thereby meeting the standard of reasonable assurance of adequate protection. It also aligns with requirements for production facilities under 10 CFR part 50 and would apply commensurate QA requirements to a spent fuel reprocessing facility licensed under 10 CFR part 70.

However, given the wide range of potential technologies and facility scales associated with spent fuel reprocessing facilities and plutonium processing and fuel fabrication plants, the NRC is considering, instead, applying in the final rule a graded

technology-neutral approach that would specifically tailor the QA requirements to the technology involved. The NRC is specifically seeking feedback on whether there may be specific instances where certain criteria in appendix B of 10 CFR part 50 may not be justified for making a safety determination. The NRC is also seeking feedback on whether there are relevant safety features or aspects of reprocessing operations that would make a graded approach to QA requirements more appropriate. Please explain the basis for your response.

Spent Fuel Reprocessing Facility – Operator Licensing Program

The NRC seeks comments on the proposed spent fuel reprocessing facility operator licensing program. The NRC is proposing to add a new § 70.22(o) that requires spent fuel reprocessing facility applications to contain a proposed operator licensing program if operation of the facility involves the manipulation of controls. The NRC is also proposing a new definition of "control" in § 70.4, which defines a control, with respect to a spent fuel reprocessing facility licensed under 10 CFR part 70, as "an engineered item relied on for safety, the manipulation of which could result in unmitigated high consequences identified in §70.61(b) to any individual located outside the controlled area identified pursuant to §70.61(f)."

The NRC is specifically seeking feedback on this definition and the threshold for what constitutes a control and therefore an operator licensing program. As part of this consideration, the public is invited to provide comments on whether the threshold is appropriate or if another threshold should be considered.

More specifically, the NRC is considering revising the definition of control in the final rule to include both onsite and offsite consequences of concern. And to differentiate from other facilities licensed under subpart H of 10 CFR part 70, the NRC is also considering revising the definition of control in the final rule to specify that the

consequences of concern from unmitigated accident sequences are related to hazards that are unique to spent fuel reprocessing. If the NRC were to opt for this revised definition, the NRC is interested in feedback detailing what those unique hazards are that differentiate spent fuel reprocessing facilities from other subpart H of 10 CFR part 70 facilities.

The NRC is also considering revising the definition of control such that, rather than the proposed consequence based definition, the definition would instead include other considerations such as the complexity of the controls, or sequence of controls, to be manipulated to prevent or mitigate a consequence above the defined threshold. The NRC is seeking feedback on this potential change to the proposed definition. Please provide the basis for your response.

Finally, the NRC is seeking feedback on the proposal in this rule that operator licensing should be required for spent fuel reprocessing facilities that are not defined as production facilities. In light of the ISA and management measures requirements in subpart H of 10 CFR part 70, the NRC is considering not requiring an operator licensing program requirement for spent fuel reprocessing facilities that are not production facilities. Specifically, the NRC is seeking feedback on whether an operator licensing program should be required only for spent fuel reprocessing facilities that are production facilities. In responding, please include a basis in your response that describes why an operator licensing program would or would not be needed at non-production facilities to ensure adequate safety. If, instead, the NRC continues with the rule as proposed, where all spent fuel reprocessing facilities are required to have an operator licensing program based on a threshold (such as the thresholds for controls), should the proposed threshold be modified; and if so, how and why?

Spent Fuel Reprocessing Facility – Operator General Licenses

The NRC seeks comments on the spent fuel reprocessing facility operator licensing process. The NRC is proposing to specifically license operators of a spent fuel reprocessing facility through license conditions. Alternatively, the NRC is considering an option where the final rule would establish a general license for operators of a spent fuel reprocessing facility. The NRC envisions the option would include requirements similar to those the NRC has proposed in "Risk Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors" (89 FR 86918; October 31, 2024). Under this option, general-licensed reprocessing facility operators would perform duties under the provisions of a general license that would be effective without the filing of an application with the NRC or the issuance of licensing documents to a particular person.

The NRC is specifically seeking feedback on whether spent fuel reprocessing facility licensed operators should be specifically or generally licensed. If the NRC pursues a general license for spent fuel reprocessing facility operators (and, similarly, if operators are to be specifically licensed), what should the requirements be for that program? Are there key concepts in §§ 53.805 through 53.820 that should or shouldn't be included? Please provide the basis for your responses.

Spent Fuel Reprocessing Facility – As Production Facilities

The NRC seeks comments on the application of AEA requirements for "production facilities" to all spent fuel reprocessing facilities. This proposed rule is written to take into consideration possible applicants that do not meet the AEA's definition of production facility. However, due to uncertainties in the technologies and associated risk, the NRC is proposing to apply some of the statutory requirements for reprocessing facilities that meet the definition of production facility to facilities that do not meet the definition of production facility. These include proposed operator licensing programs (if manipulation of controls, as defined, are required), as well as prohibitions on both

construction at risk and foreign ownership, control, and domination. If there are non-production facility spent fuel reprocessing facilities in the future where these requirements are not necessary, under this proposed rule, those applicants may request exemptions under § 70.17 that the NRC may grant if justified. The NRC is seeking input on this approach, and specifically, whether this is the appropriate list of statutory provisions to apply to non-production reprocessing facilities. If not, what provisions should be excluded or what other provisions should be included? What specific factors or considerations should the NRC evaluate when determining whether such requirements should not apply to non-production reprocessing facilities? What information currently exists to indicate that the requirements, as proposed, are not necessary to ensure safety at facilities that do not meet the definition of a production facility? And, conversely, if the provisions in this proposed rule are sufficient. Please provide the basis for your responses.

Spent Fuel Reprocessing Facility – Technical Specifications

The NRC is seeking feedback on the proposed approach regarding technical specifications. Under the proposed rule, technical specifications would not be required for spent fuel reprocessing facilities that do not meet the AEA's definition of production facility because these facilities are subject to the requirements in subpart H of 10 CFR part 70 for ISA and management measures. Under the NRC's proposal, spent fuel reprocessing facilities that are defined as production facilities would need to provide technical specifications, regardless of facility risks, in accordance with the AEA.

The NRC is considering an alternative approach that would require all spent fuel reprocessing facility applications (whether production or non-production facilities) to include technical specifications based on an established set of thresholds, similar to the proposed approach for operator licensing programs. In the alternative approach, spent

fuel reprocessing facilities that do not have accident sequences that would exceed these thresholds would not be required to provide technical specifications as part of the application. If the NRC were to proceed with the alternative approach of establishing a threshold, the NRC is seeking feedback on whether the technical specification thresholds in the November 2011 draft regulatory basis document should be applied to all spent fuel reprocessing facilities (production and non-production facilities) and whether those thresholds are appropriate. Please provide the basis for your response.

Issue 3: Change process for 10 CFR Part 70 License Application Documents

The NRC seeks comments on the change process for 10 CFR part 70 license application documents. The regulations currently provide processes to allow licensees to make changes to certain licensing documents without prior NRC approval if they meet specified criteria. Some of these regulations include § 70.32(c)(1)(3) for changes to material control procedures, § 70.32(d) for changes to plans for the physical protection of special nuclear material in transit, § 70.32(e) for changes to physical security plans, § 70.72(c) for facility changes, and in 10 CFR part 95, § 95.19(b) for changes to security practices and procedures. Additionally, § 70.72 includes a facility change process and provides criteria specifying the conditions under which a licensee may make changes to the site, structures, processes, systems, equipment, components, computer programs, and activities of personnel, without prior NRC approval.

However, current requirements do not allow a licensee to make changes to their license application or to the supporting documents referenced in the license under § 70.72 without prior NRC approval because they are limited by a license condition. In response to several requests, the NRC has added a license condition that permits licensees to change certain information in the license application and the supporting licensing documents without first seeking NRC approval if they meet established criteria.

Regulatory Guide (RG) 3.74, “Guidance for Fuel Cycle Facility Change Processes” (77 FR 823, January 6, 2012), contains guidance regarding the information a licensee or applicant must provide to request this license condition.

The NRC is considering amending 10 CFR part 70 in the final rule to codify the license condition and make it broadly applicable, as a voluntary option, to any licensee under subpart H of 10 CFR part 70. In the process under consideration, the licensee would be able to make changes to the license application without prior NRC approval provided the change meets certain provisions. The considerations for this change process are described in RG 3.74 positions C.5.b and C.5.c and the rule provision under consideration, which would build on RG 3.74 and past approvals (with some revisions, e.g., reporting changes to the NRC every 12 months) would read:

> Any change to the license application and supporting licensing documents included in license conditions must be evaluated by the licensee before the change is implemented and a record of the evaluation must be retained.
>
> The licensee may make changes to the license application and supporting licensing documents included in license conditions without prior Commission approval, if the change: does not decrease the level of effectiveness of the design basis as described in the License Application; does not result in a degradation of safety; does not affect compliance with applicable regulatory requirements; and does not conflict with an existing license condition.
>
> Within 12 months after each change is made, the licensee shall submit the revised chapters of the License Application to the Director, Office of Nuclear Material Safety and Safeguards, using an appropriate method listed in §70.5(a) with a copy to the appropriate NRC Regional Office.

The NRC is specifically seeking feedback on whether it would be beneficial to add this optional change process to its regulations in 10 CFR part 70, and if so what criteria should be used to determine if prior NRC approval is needed. Additionally, the NRC is seeking feedback on an appropriate reporting frequency as license conditions, to date, have required reporting every six months. Should the NRC specify documentation requirements for the licensee’s evaluation supporting the finding that preapproval is not

required, similar to those included in § 70.72(a)? Conversely, the NRC is seeking information on if the optional change process is not seen to be beneficial. Please provide the basis for your responses.

Issue 4: Baseline Design Criteria in 10 CFR part 70

The NRC is not proposing any changes to the baseline design criteria requirements in the proposed rule; however the NRC is seeking stakeholder input on the implementation of each of the baseline design criteria which were established when subpart H was added to 10 CFR part 70. These criteria were intended to provide an acceptable set of initial design safety considerations and complement the performance requirements in § 70.61 to ensure that safety is not wholly dependent on any single element of design, construction, maintenance, or operation. This approach is intended to help maintain safety margins, defense in depth, and reduce challenges to IROFS. Based on more than 20 years of operating and licensing experience, the NRC requests feedback on whether rule text changes are needed. Please provide the basis for your response.

VI. Regulatory Flexibility Certification

Under the Regulatory Flexibility Act (5 U.S.C. 605(b)), the NRC anticipates that this proposed rule will not, if issued, have a significant economic impact on a substantial number of small entities. While the rule may affect some “small entities” as defined by the Act or the NRC’s size standards (§ 2.810), the overall impact is expected to be minimal.

The staff is proposing several changes across the materials regulations to modernize the NRC’s materials licensing requirements. These changes are deregulatory in nature and include streamlining the process for certain new applicants and eliminating certain requirements prior to facility construction to enable bringing power to the grid.

Unnecessary regulations are also being eliminated, and reporting and recordkeeping requirements are being reduced. The staff is proposing several other changes to clarify regulations that are confusing or ambiguous to make the overall licensing process more efficient. Finally, regulations governing the storage of radioactive material are being amended to accommodate new and advanced nuclear fuels.

Therefore, the NRC attests under 5 U.S.C. 605(b) that this rule would not have a significant economic impact on a substantial number of small entities. If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this rule would have a significant economic impact on it, please submit a comment (see ADDRESSES) explaining why you think it qualifies and how and to what degree this rule would economically affect it.

VII. Regulatory Analysis

The NRC is proposing to make several changes to its materials regulations to reduce burden, increase efficiency, and enable bringing power to the grid. These changes will also have economic benefits, but for the reasons stated in this section, the NRC is not able to make a quantitative assessment of the cost savings for all proposed regulatory changes. For example, the NRC does not have detailed data on licensees' pre-construction procurement schedules or financing, therefore the NRC is unable to make a detailed analysis of the economic benefits of shortening the time required for facility construction. Other proposed regulatory changes seek to modernize licensing for new technologies, including for reprocessing and fuel fabrication, for which there is either no existing data or no publicly available data. Where possible, a quantitative analysis has been provided.

Parts 30 and 40

In 10 CFR parts 30 and 40, the NRC is proposing to amend its regulations to clarify existing language, reduce the facility construction timelines, and simplify the requirements for the environmental report. The changes proposed are also necessary to address a licensee's flexibility in implementing existing regulatory requirements. The NRC anticipates economic benefits, in the form of monetary savings, from shortening the amount of time required to construct facilities under 10 CFR parts 30 and 40 (as well as 10 CFR part 70, discussed further below). However, since the NRC is being proactive in its approach for regulating perceived new technology, the NRC does not have data to formulate a quantitative assessment of the economic benefits the industry can anticipate from these changes, nor is there enough data to quantitatively address monetary savings from streamlining the construction timelines and application requirements. Qualitatively, however, the benefits in savings to the industry, as a result of the clarifying changes to 10 CFR parts 30 and 40, reduce interaction time with the NRC, as well as provide flexibility for applicants moving forward.

Part 37

The proposed revisions to 10 CFR part 37 would formalize existing practice established through EGM-14-001. Additionally, the proposed rule also includes clarifying language in § 37.11(c) to alleviate potential confusion. The NRC maintains that these changes are economically neutral, as they do not alter licensee behavior but rather reflect current practices.

Part 70

The changes the NRC is proposing in 10 CFR part 70 provide industry with flexibility in meeting current regulatory requirements, as well as flexibility in how to meet the regulatory requirements as they apply to potential new technological advancements in reprocessing and fuel fabrication. Some modifications proposed in 10 CFR part 70 are clarifying in nature, and therefore, do not create an economic burden. There are also

many proposed changes to 10 CFR part 70 that reduce burden by eliminating or reducing reporting or record keeping requirements, which may also create savings for the industry by minimizing interactions with the NRC.

The NRC has also identified several other proposed changes to 10 CFR part 70 for which it is unable to quantitively determine the cost savings they would create for the industry. The following table provides a qualitative assessment of the provisions proposed in 10 CFR part 70 that the NRC anticipates would create economic savings for the industry.

Table 1. NRC's Anticipated Qualitative Saving in 10 CFR Part 70

Title	Discussion of Qualitative Savings
Spent Fuel Reprocessing Facility Assessment	The NRC is removing the two-step licensing process which may reduce the amount of time spent in the application process. The decrease in time spent is expected to create an economic benefit realized as a savings for applicants. However, because no applicants have submitted a license application for a spent fuel reprocessing facility, the NRC has insufficient data for the baseline to compare to the potential saving of the proposed process and is thus unable to quantify the economic savings resulting from this proposed regulatory change.
Pilot Fuel Line Assessment	It is currently unclear how many and what types of facilities will seek authorization under the DOE's Pilot Fuel Line Program. Moreover, the NRC staff lacks actual review effort data as no application for a pilot fuel line authorized by DOE has been previously submitted for NRC review under the current regulatory framework. However, the NRC anticipates that clarifying the requirements would create industry savings.
Eliminating Two-step Process for Plutonium processing and Fuel Fabrication Facilities	The current regulatory requirements predate the addition of subpart H of 10 CFR part 70, which introduced the integrated safety analysis (ISA) ISA framework, and are not statutorily required. With the ISA now providing a comprehensive and systematic safety evaluation, the two-step process is no longer necessary. The NRC anticipates that these changes would create an industry saving. However, the NRC is unable to measure the savings due to lack of data on number of future applicants and complexity of future applications.

Revising Construction Provisions	This provision is removing the 9-month notification requirement for commencement of construction of fuel cycle facilities. This change would give applicants greater flexibility in planning and initiating construction activities, thereby reducing the need for updating and editing documents that have already been submitted. The NRC anticipates savings from this change but is unable to measure the savings due to the absence of historical data.
Performance Requirement	The NRC is making changes to § 70.61(e)(2), 70.61(e)(2)(i), and 70.61(e)(2)(ii) which would credit licensees that have demonstrated their structures are capable of preventing and mitigating natural phenomena-initiated accident sequences. This action would reduce recordkeeping-related burden for licensees. The NRC anticipates the changes to this provision would result in annual savings. However, the NRC is unable to measure the amount of savings resulting from this action due to the case-specific impacts of this change. This includes the specificity of the credit being granted to licensees where they have demonstrated their structures can prevent and mitigate natural phenomena-initiated accident sequences and the amalgamation of other ISAs into one recordkeeping dialogue.
Site-Specific Likelihood Thresholds for Reporting IROFS Failures	Under this revision, licensees may propose alternative thresholds for reporting that are aligned with the specific facility and risk—such as defining “unlikely” events as those with a likelihood of 10^{-3} and “highly unlikely” events as those with a likelihood of 10^{-4}—rather than adhering strictly to the thresholds used to demonstrate compliance with the performance requirements of § 70.61 (e.g., 10^{-4} and 10^{-5}, respectively). This change recognizes that the likelihood thresholds used for reporting purposes do not necessarily need to match those used in the ISA to demonstrate compliance with § 70.61, provided that the overall facility risk remains acceptably low. The NRC perceives a saving from this proposed change owing to the enhanced flexibility it would offer; however, the NRC does not have awareness of how many reports may be avoided. This limits the ability to quantify the potential reduction in reporting burden.

Part 72

There are portions of the changes in 10 CFR part 72 that are similar to those in 10 CFR part 30 above. Therefore, NRC is referring back to 10 CFR part 30 for discussion on proposed changes affecting technological innovation.

Additionally, the NRC is proposing to revise § 72.44(d)(3) by removing redundant annual reporting of gaseous effluents to the NRC. This change removes the requirement for licensees to submit these reports to the NRC but still provides licensees with the option to submit these reports if they so choose. If the licensee elects not to submit the report, they would instead need to maintain the report in their files and present the report when asked by an NRC inspector. The NRC estimates potential time savings, for both licensees and NRC staff, from implementing this change.

The NRC's estimated savings for licensees was calculated using the loaded wage rate of $137.14[1]. The NRC estimates that a licensee would take 0.083 hours to submit the gaseous effluent report to NRC. The estimated total annual saving from reducing duplicative reporting is $857 non-discounted, and savings over a period of 10-year is estimated to be $6,020 and $7,311 discounted at 7 and 3 percent, respectively.

The NRC's potential savings would come from eliminating the need to review and process the annual reports. The NRC receives 75 gaseous effluent annual reports, and it takes the staff two hours to review and process each report. Annually, the NRC spends 150 hours reviewing gaseous effluent reports. Using the wage rate of $158 for NRC's employment, the staff expect this proposed rule to save the agency approximately $23,700 annually. The staff estimates total 10 years savings at $166,460 and $202,166 discounted at 7 and 3 percent, respectively.

[1] The wage used for this occupation was Facilities Managers (11-3013) from across all industries on BLS SOC website https://data.bls.gov/oes/#/industry/221113. for year 2024. In addition, the wage rate is loaded by a ratio of 1.6 to account for benefits employees receive from their employer (e.g. health care insurance, vacation time) $137.14 = ($85.71 *1.6).

Total combined 10 years savings for both industry and the NRC are estimated at $245,571 (undiscounted) and net present value of $209,477 discounted at 7 and 3 percent, respectively, with annualized 10 years savings at $172,479 discounted at 7. Table 2 shows the combined 10-year period of analysis.

Table 2. Combined savings from Provision § 72.44(d)(3)

Year	Undiscounted	7%	3%
1	$ 24,557	$ 22,951	$ 23,842
2	$ 24,557	$ 21,449	$ 23,147
3	$ 24,557	$ 20,046	$ 22,473
4	$ 24,557	$ 18,734	$ 21,819
5	$ 24,557	$ 17,509	$ 21,183
6	$ 24,557	$ 16,363	$ 20,566
7	$ 24,557	$ 15,293	$ 19,967
8	$ 24,557	$ 14,292	$ 19,386
9	$ 24,557	$ 13,357	$ 18,821
10	$ 24,557	$ 12,484	$ 18,273
Total	$ 245,571	$ 172,479	$ 209,477
Annualized		$24,557	$24,557

Furthermore, the NRC's proposed change to § 72.214 would eliminate the requirement for a direct final rule as part of the NRC's approval process for new or modified spent fuel dry storage casks entering the market. Under the current regulation, in order for a cask design or modification to be approved for use, a cask vendor must

submit an application to the NRC for approval and, as part of the approval process, the NRC reviews the application and develops a direct final rule. The direct final rule serves to add the new cask design or modification to a list of NRC-approved cask designs in § 72.214. The proposed change to § 72.214 would remove the list of approved cask designs from the regulation and instead point general licensees to a list of NRC-approved casks on the NRC's public website. Thus, the proposed change would have the NRC review and approve the application without developing a direct final rule for each new cask design or modification. Therefore, the proposed change to § 72.214 would mostly affect the NRC's approval process and have an indeterminate effect on vendors and licensees.

Under the current approval process, the NRC develops a direct final rule every time it approves a cask design or modification for use by general licensees. On average, the NRC receives 8 applications per year, which means it must create 8 separate direct final rules. NRC staff spend about 1,500 hours developing each rule. Therefore, over the course of 1 year, the NRC invests approximately 12,000 hours in creating direct final rules under § 72.214. To estimate the monetary costs of the NRC, the staff uses a $158 hourly rate for the NRC wage rate. The estimated cost of creating one direct final rule is $237,000 per application. Assessing the 1-year and 10-year cost savings from changes to § 72.214, the staff estimates potential NRC benefit at $1.9 million and $19 million respectively in undiscounted savings. The estimated 10-year net present value for the 10-year period of analysis is $13.3 million at a 7 percent discount. Hence, the NRC is anticipating a reduction in its burden which would create a saving for the NRC. Table 3 shows the results of calculating the effect of changes to § 72.214.

Table 3. Potential NRC Savings from Changes to §72.214

Year	Undiscounted	7%	3%
1	$ 1,896,000	$ 1,771,963	$ 1,840,777
2	$ 1,896,000	$ 1,656,040	$ 1,787,162

3	$ 1,896,000	$ 1,547,701	$ 1,735,109
4	$ 1,896,000	$ 1,446,449	$ 1,684,571
5	$ 1,896,000	$ 1,351,822	$ 1,635,506
6	$ 1,896,000	$ 1,263,385	$ 1,587,870
7	$ 1,896,000	$ 1,180,734	$ 1,541,622
8	$ 1,896,000	$ 1,103,489	$ 1,496,720
9	$ 1,896,000	$ 1,031,298	$ 1,453,126
10	$ 1,896,000	$ 963,830	$ 1,410,802
Total	$ 18,960,000	$ 13,316,711	$ 16,173,265
Annualized		$1,896,000	$1,896,000

Additionally, the proposed changes to the cask approval process would create a benefit to the industry. The process of drafting and publishing a direct final rule for each NRC approval of a cask design or modification takes approximately six months to complete. During that time, the cask vendor is unable to generate revenue from the cask design for which they are awaiting NRC's approval. By removing the rulemaking requirement, a vendor would be able to generate revenue on a quicker timeframe that, under the current regulation, is unattainable.

Removing the rulemaking requirement for cask approvals would allow vendors to reverse the opportunity lost due to rulemaking process, which would equate to approximately six months. The NRC foresees a vendor's time as an opportunity gained, and therefore, a benefit. However, the NRC is unable to enumerate the benefits for two reasons: (1) the NRC does not have information on vendors' marketing strategies to make an intuitive cash flow assessment, and (2) the NRC is unable to track sales data of casks. Although the NRC cannot provide a quantitative assessment of the vendor's benefits, it anticipates that the change to § 72.214 will yield a positive economic impact for vendors for the reasons aforementioned.

To summarize the quantitative impact to the affected population, the NRC combines estimates from tables 2 and 3 to assess the overall impact of the proposed

rule. The total aggregated cost saving for the proposed rule is estimated to have annual savings of $1.9 million (undiscounted) with a 10-years net present value of $13.5 million discounted at 7 percent. Table 4 shows a savings schedule over a 10-year period of analysis.

Table 4. Total Cost Savings for this Proposed Rule

Year	Undiscounted	7%	3%
1	$ 1,920,557	$ 1,794,913	$ 1,864,619
2	$ 1,920,557	$ 1,677,489	$ 1,810,309
3	$ 1,920,557	$ 1,567,747	$ 1,757,582
4	$ 1,920,557	$ 1,465,184	$ 1,706,390
5	$ 1,920,557	$ 1,369,331	$ 1,656,689
6	$ 1,920,557	$ 1,279,748	$ 1,608,436
7	$ 1,920,557	$ 1,196,026	$ 1,561,589
8	$ 1,920,557	$ 1,117,782	$ 1,516,106
9	$ 1,920,557	$ 1,044,656	$ 1,471,947
10	$ 1,920,557	$ 976,314	$ 1,429,075
10-YR Total	$19,205,570	$ 13,489,190	$ 16,382,742
Annualized		$1,920,557	$1,920,557

Additionally, the NRC estimates this proposed rule would have perpetuity cost savings of $1.9 million discounted at 7 percent in 2024 dollars.

VIII. Backfitting and Issue Finality

This section describes the backfitting implications of this proposed rule. The NRC's backfitting provisions relevant to this proposed rule appear in §§ 70.76 and 72.62, each entitled "Backfitting," and apply to holders of certain licenses under 10 CFR part 70 and holders of general or specific licenses under 10 CFR part 72, respectively. Parts 30, 37, 40, 51, and 140 of 10 CFR chapter I do not contain backfitting provisions. The NRC Management Directive 8.4, "Management of Backfitting, Forward Fitting, Issue Finality,

and Information Requests," describes the Commission's policies on backfitting.

The 10 CFR parts 70 and 72 backfitting provisions apply to actions taken by the NRC under 10 CFR parts 70 and 72, respectively, or actions taken by the NRC under other parts of 10 CFR chapter I that, for holders of certain approvals under 10 CFR part 70 or 72, inextricably affect their activities regulated under 10 CFR part 70 or 10 CFR part 72, respectively. The proposed changes would not meet the definition of "backfitting" in § 70.76 because the proposed changes would not modify or add to the SSCs or design of a facility or to the procedures or organization required to operate a facility under 10 CFR part 70. These changes would not meet the definition of "backfitting" in § 72.62 because the proposed changes would not add, eliminate, or modify the SSCs of an ISFSI or the procedures or organization required to operate an ISFSI.

Further, the proposed changes to 10 CFR part 37 (see section IV.B of this document) as well as the proposed conforming changes to 10 CFR parts 30, 40, 51, and 140 (see section IV.A and IV.D of this document) to reflect the proposed changes to 10 CFR parts 70 and 72, would not inextricably affect activities regulated under 10 CFR parts 70 or 10 CFR part 72. Therefore, the issuance and implementation of the proposed rule would not affect 10 CFR part 70 or 10 CFR part 72 entities' activities regulated under 10 CFR part 70 or 10 CFR part 72. For these reasons, the proposed rule would not constitute backfitting under 10 CFR parts 70 and 72.

The NRC would also post on its public website a series of frequently asked questions (FAQs) and NRC responses related to this proposed rule as described in section XVI, "Availability of Guidance," of this document. These FAQs would not constitute backfitting as defined in § 70.76 or § 72.62 because licensees would not be required to comply with the positions set forth in the FAQs.

IX. Cumulative Effects of Regulation

The NRC seeks to minimize potential negative consequences resulting from the cumulative effects of regulation (CER). The NRC believes that the deregulatory impacts of this rulemaking activity are unlikely to cause implementation challenges for stakeholders. In addition, during the pendency of this rulemaking, the NRC is deprioritizing issuance of regulatory actions that might influence the implementation date for the new rule requirements (e.g., orders, generic communications, license amendment requests, and inspection findings of a generic nature).

To fully understand any potential CER implications that could result from this rulemaking, the NRC is asking the following questions. Response to these questions is voluntary and any input will be considered during development of the final rule.

1. NRC is proposing an effective date that will be 30 days after the date of publication of a final rule. Does this provide sufficient time to implement the proposed requirements? Please provide a rationale for your response.
2. Are there unintended consequences related to this rulemaking and how should they be addressed? Please provide a rationale for your response.
3. Please comment on the NRC's cost and benefit estimates in the regulatory analysis that supports this proposed rule.

X. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, and well-organized manner. The NRC has written this document to be consistent with the Plain Writing Act as well as the Presidential Memorandum, "Plain Language in Government Writing," published June 10, 1998 (63 FR 31885). The NRC requests comment on this document with respect to the clarity and effectiveness of the language used.

XI. Environmental Assessment and Proposed Finding of No Significant Environmental Impact

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in subpart A of 10 CFR part 51, that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment, an environmental impact statement is not required. The basis of this determination is available in ADAMS Accession No.ML25288A041.

The determination of this environmental assessment is that there will be no significant effect on the quality of the human environment from this action. Public stakeholders should note, however, that comments on any aspect of this environmental assessment may be submitted to the NRC as indicated under the ADDRESSES caption.

XII. Paperwork Reduction Act

This proposed rule amends new or amended collections of information subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This proposed rule has been submitted to the Office of Management and Budget for review and approval of the information collections.

Type of submission: New

The title of the information collection: Modernizing Materials Licensing

The form number if applicable: Not applicable.

How often the collection is required or requested: Certain events must be reported to the NRC Operations Center within 1 hour, 4 hours, or 24 hours of discovery, depending on the event type. Other reports are due within 30 days or 60 days of an event,

semiannually, annually, or upon the occurrence of specific events. Records must be maintained for periods ranging from 3 years to the duration of the license or until decommissioning is complete, depending on the record type.

Who will be required or asked to respond: Applicants and licensees regulated under 10 CFR parts 30, 37, 40, 51, 70, 72, and 140, including spent fuel reprocessing facilities and pilot fuel lines licensed under 10 CFR part 70.

An estimate of the number of annual responses:

10 CFR part 30: 3 (3 reporting responses + 0 recordkeepers)

10 CFR part 37: 2 (2 reporting responses + 0 recordkeepers)

10 CFR part 40: 0

10 CFR part 51: -8 (-8 reporting responses)

10 CFR part 70: 120 (92 reporting responses + 28 recordkeepers)

10 CFR part 72: -213 (-298 reporting responses + 85 recordkeepers)

10 CFR part 140: 1 (1 reporting response + 0 recordkeepers)

The estimated number of annual respondents:

10 CFR part 30: 3

10 CFR part 37: 2

10 CFR part 40: 0 during the clearance period

10 CFR part 51: 0

10 CFR part 70: 31

10 CFR part 72: 85

10 CFR part 140: 1

An estimate of the total number of hours needed annually to comply with the information collection requirement or request:

10 CFR part 30: 6 (6 reporting +0 recordkeeping)

10 CFR part 37: 16 (16 reporting + 0 recordkeeping)

10 CFR part 40: 0

10 CFR part 51: 0

10 CFR part 70: 44,591 (40,642 reporting + 3,949 recordkeeping)

10 CFR part 72: -2,305 (-2,900 reporting + 595 recordkeeping)

10 CFR part 140: 2 (2 reporting + 0 recordkeeping)

Abstract: The proposed rule would revise information collection related to materials licensing. Major changes would include eliminating the nine-month advance application requirement for facility construction in 10 CFR parts 30, 40, and for some facilities under 10 CFR part 70, and allowing construction to begin at the applicant's risk for most materials facility types; introducing a new exemption in 10 CFR part 37 for large components and robust structures containing category 1 or category 2 quantities of radioactive material, with new recordkeeping for exemption documentation; streamlining and clarifying application content and reporting requirements in 10 CFR part 70, especially for spent fuel reprocessing facilities; shifting certain annual and biennial reporting requirements in 10 CFR part 72 to recordkeeping only, and adjusting notification and registration deadlines for spent fuel storage; and establishing new documentation requirements in 10 CFR part 140 for spent fuel reprocessing facility licensees (liability insurance and indemnification for reprocessing facilities). These changes collectively would reduce unnecessary regulatory burden, clarify ambiguous requirements, and improve the efficiency and practical utility of NRC's information

collections, ensuring that the agency would continue to receive essential information for effective oversight while minimizing paperwork burdens on regulated entities.

The NRC is seeking public comment on the potential impact of the information collection(s) contained in this proposed rule and on the following issues:

1. Is the proposed information collection necessary for the proper performance of the functions of the NRC, including whether the information will have practical utility? Please explain your response.

2. Is the estimate of the burden of the proposed information collection accurate? Please explain your response.

3. Is there a way to enhance the quality, utility, and clarity of the information to be collected? Please explain your response.

4. How can the burden of the proposed information collection on respondents be minimized, including the use of automated collection techniques or other forms of information technology?

A copy of the OMB clearance package is available in ADAMS under Accession No. ML25288A044 or may be viewed free of charge by contacting the NRC's Public Document Room reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. You may obtain information and comment on submissions related to the OMB clearance package by searching on https://www.regulations.gov under Docket ID NRC-2025-1370.

You may submit comments on any aspect of these proposed information collections, including suggestions for reducing the burden and on the above issues, by the following method:

- **Federal rulemaking Web Site:** Go to https://www.regulations.gov and search for Docket ID NRC-2025-1370.

Submit comments by **[INSERT DATE 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

XIII. Executive Orders

The following are Executive orders that are related to this proposed rule:

A. Executive Order 12866: Regulatory Planning and Review (as amended by Executive Order 14215, Ensuring Accountability for All Agencies)

The Office of Information and Regulatory Affairs (OIRA) has determined that this proposed rule is a significant regulatory action. Accordingly, the NRC submitted this proposed rule to OIRA for review. The NRC is required to conduct an economic analysis in accordance with section 6(a)(3)(B) of E.O. 12866. More can be found in Section VII, of this document, “Regulatory Analysis.”

B. Executive Order 14154: Unleashing American Energy

The NRC has examined this proposed rule and has determined that it is consistent with the policies and directives outlined in E.O. 14154.

C. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is tentatively determined to be a deregulatory action as defined by E.O. 14192. Details on the estimated cost savings of this proposed rule can be found in Section VII of this document, “Regulatory Analysis.”

D. Executive Order 14270: Zero-Based Regulatory Budgeting to Unleash American Energy

E.O. 14270, “Zero-Based Regulatory Budgeting to Unleash American Energy,” requires the NRC to insert a conditional sunset date into all new or amended NRC regulations provided the regulations are (1) promulgated under the AEA, the Energy Reorganization Act of 1974, as amended (ERA), or the Nuclear Waste Policy Act of 1982, as amended (NWPA); (2) not statutorily required; and (3) not part of the NRC’s permitting regime. The NRC determined that the regulatory changes proposed in this rule are required because they are necessary for providing reasonable assurance of adequate protection of public health and safety and the common defense and security, and would be part of the NRC’s permitting regime authorized by the AEA. Therefore, the NRC views this rulemaking to be outside the scope of E.O. 14270 and did not insert conditional sunset dates for the regulatory changes in this proposed rule.

E. Executive Order 14294: Fighting Overcriminalization in Federal Regulations

This proposed rule includes Federal regulations that, if adopted, would be enforceable by criminal penalty, as authorized by Section 223 of the AEA. Therefore, per E.O. 14294, those regulations constitute “criminal regulatory offenses.”

For the purposes of Section 223 of the AEA, the NRC is issuing this proposed rule that would amend 10 CFR parts 70, 72, and 140 under one or more of Sections 161b, 161i, or 161o of the AEA, except as noted in §§ 70.92, 72.86, and 140.89. The applicability of criminal penalties to regulations in 10 CFR parts 70, 72, and 140 is set forth in §§ 70.92, 72.86, and 140.89. Willful violations of the 10 CFR parts 70, 72, and 140 regulations, other than those listed in §§ 70.92, 72.86, and 140.89 (including as updated by this proposed rule), would be subject to criminal enforcement.

XIV. Coordination with NRC Agreement States

On September 3, 2025, the NRC held a government-to-government meeting with the Agreement States regarding E.O. 14300, “Ordering the Reform of the Nuclear

Regulatory Commission." In this meeting, the NRC presented its goals and objectives for future rulemakings, including this proposed rule, to be done in response to the E.O. At the time of the meeting, the proposed rule text was not available.

XV. Compatibility of Agreement State Regulations

On the basis of the "Agreement State Program Policy Statement" approved by the Commission on October 2, 2017, and published in the *Federal Register* (82 FR 48535; October 18, 2017), NRC program elements can be placed into six categories (A, B, C, D, NRC, or health and safety (H&S)) to form the basis for evaluating and classifying the program elements. Under the Policy Statement, a program element means any component or function of a radiation control regulatory program, including regulations and other legally binding requirements imposed on regulated persons, which contributes to implementation of that program. This proposed rule only modifies regulations that are of Compatibility Categories B, C, D, and NRC.

Compatibility Category B pertains to a limited number of program elements that cross jurisdictional boundaries and should be addressed to ensure uniformity of regulation on a nationwide basis. For Compatibility Category B, the Agreement State program element shall be essentially identical to that of NRC.

Program elements in Compatibility Category C include those program elements that are important for an Agreement State to have in order to avoid conflict, duplication, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a national basis. An Agreement State program shall embody the essential objectives of the Category C program elements. Under Category C, Agreement State program elements may be more restrictive than NRC program elements; however, they should not be so restrictive as to prohibit a practice authorized by the AEA, and in

the national interest without an adequate public health and safety or environmental basis related to radiation protection.

Compatibility Category D are those program elements that do not meet any of the criteria of Category A, B, or C, and are not required to be adopted by Agreement States for purposes of compatibility. An Agreement State has the flexibility to adopt and implement program elements within the State's jurisdiction that are not addressed by the NRC or that are not required for compatibility. However, such program elements of an Agreement State relating to agreement material shall (1) not create conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis; (2) not preclude a practice authorized by the AEA and in the national interest; and (3) not preclude the ability of the NRC to evaluate the effectiveness of Agreement State programs for agreement material with respect to protection of public health and safety.

Compatibility Category NRC are those program elements that address areas of regulation that cannot be relinquished to the Agreement States under the AEA, or provisions of 10 CFR. The NRC maintains regulatory authority over these program elements and the Agreement States must not adopt these NRC program elements. However, an Agreement State may inform its licensees of these NRC requirements through a mechanism under the State's administrative procedure laws, as long as the State adopts these provisions solely for the purposes of notification, and does not exercise any regulatory authority as a result.

The proposed rule is a matter of compatibility between the NRC and the Agreement States, thereby providing consistency among Agreement State and NRC requirements. The compatibility (A, B, C, D, and NRC) and adequacy (H&S) categories are designated in the following table:

Adequacy and Compatibility Table

Section	Change	Subject	Adequacy or Compatibility	
			Existing	New
30.32(f)	Amend	Application for specific licenses	D	D
30.33(a)(5)	Amend	General requirements for issuance of specific licenses	D	D
37.5	New	Definitions, Large Component	-	B
37.5	New	Definitions, Robust Structure	-	B
37.11(c)	Amend	Specific exemptions	B	B
37.11(d)	New	Specific exemptions	-	B
40.31(f)	Amend	Application for specific licenses	D	D
40.32(e)	Amend	General requirements for issuance of specific licenses	H&S—States with authority to regulate uranium mill activities (11e.(2) byproduct material). NRC—States without authority	D
70.1(d)	Remove	Purpose	NRC	-
70.1(f)	New	Purpose	-	NRC
70.4	New	Definitions, Combined license	-	NRC
70.4	New	Definitions, Control	-	NRC
70.4	New	Definitions, Operator license	-	NRC
70.4	New	Definitions, Pilot fuel line	-	NRC
70.4	New	Definitions, Spent fuel reprocessing facility	-	NRC
70.5(b) intro	Amend	Communications	D	D
70.5(b)(1)(i), (iv), (vi), (vii)	Change Compatibility Category	Communications	D	NRC
70.5(b)(1)(viii) & (b)(1)(ix)	New	Communications	-	NRC
70.11(d)	New	Persons using special nuclear material under	-	NRC

		certain DOE and NRC contracts		
70.21(a)(1)	Amend/Redesignate (previously 70.21(a)(2))	Filing	D	D
70.21(a)(2)	Remove	Filing	D	o
70.21(a)(4)	New	Filing	-	NRC
70.21(e)	Amend	Filing	D	D
70.21(f)	Amend	Filing	NRC	NRC
70.21(h) and (i)	Remove	Filing	NRC	-
70.22(a)(7)	Amend	Contents of applications	D	D
70.22(b)	Amend	Contents of applications	NRC	NRC
70.22(f)	Amend	Contents of applications	NRC	NRC
70.22(n)	Amend	Contents of applications	NRC	NRC
70.22(o), (p), (q), and (r)	New	Contents of applications	-	NRC
70.23(a)(7)	Amend	Requirements for the approval of applications	NRC	D
70.23 (a)(8), (a)(11), (a)(12)	Amend	Requirements for the approval of applications	NRC	NRC
70.23(a)(13) through (a)(16)	New	Requirements for the approval of applications	-	NRC
70.23(b)	Remove	Requirements for the approval of applications	NRC	-
70.23a	Amend	Hearings required	NRC	NRC
70.24(a)	Amend	Criticality accident requirements	NRC	NRC
70.25(a)(3)	New	Financial assurance and recordkeeping for decommissioning	-	NRC
70.31(e)	Amend	Issuance of licenses	NRC	NRC
70.31(f)	New	Issuance of licenses	-	NRC
70.32(c)(2), (d), (e)	Amend	Conditions of licenses	NRC	NRC
70.32(l), (m), and (n)	New	Conditions of licenses	-	NRC
70.40	Amend	Ineligibility of certain applicants	NRC	NRC
70.42(d)(3)	Amend	Transfer of special nuclear material	C	C
70.50	Amend	Reporting Requirements	C	D

Note: Reporting requirements moved to Appendix A to Part 70				
70.52	Remove	Reports of accidental critically	NRC	-
70.59	Amend	Effluent monitoring reporting requirements	NRC	NRC
70.60	Amend	Applicability	NRC	NRC
70.61(e)	Amend	Performance Requirements	NRC	NRC
70.62	Amend	Safety program and integrated safety analysis	NRC	NRC
70.64	Amend	Requirements for new facilities or new processes at existing facilities	NRC	NRC
70.65	Amend	Additional content of application	NRC	NRC
70.72	Amend	Facility changes and change process	NRC	NRC
70.73	Amend	Renewal of licenses	NRC	NRC
70.74	Remove	Additional reporting requirements	NRC	-
Appendix A to Part 70 (a), (c)(1)-(4), (e)(2)-(4)	Amend	Reportable Safety Events	NRC	NRC
Appendix A to Part 70 (b), (c)(5)-(c)(8), (d), (e)(1), Note: Report requirements moved from 70.50	New	Reportable Safety Events	-	C
Appendix A to Part 70 (f)	New	Reportable Safety Events	-	NRC

XVI. Availability of Guidance

Due to the accelerated schedule for this rulemaking, the NRC is not issuing draft guidance for implementation of the proposed requirements at this time. However, the NRC has prepared “frequently asked questions” which, when finalized, will be posted to the NRC public website to provide stakeholders with guidance for implementing the final requirements contemplated by this proposed rule. The FAQs are available in ADAMS at Accession No. ML26168A407. You may submit comments on the draft FAQs by the methods outlined in the ADDRESSES section of this document.

XVII. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO. / WEB LINK / *FEDERAL REGISTER* CITATION
Guidance FAQs, “Modernizing Material Licensing,” June 2026	ML26168A407
Draft Environmental Assessment, “Modernizing Materials Licensing,” June 2026	ML26168A406
Supporting Statement for Information Collections Contained in Modernizing Materials Licensing Requirement Proposed Rule	ML25288A044
Burden Tables for Modernizing Materials and Licensing Requirements Proposed Rule	ML26168A476
PRM-37-1, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," June 12, 2014	ML14199A570
Enforcement Guidance Memorandum 2014-001, “Interim Guidance for Dispositioning 10 CFR Part 37 Inspection Findings with Respect to Large Components and Robust Structures at Facilities Licensed Under 10 CFR Parts 50 and 52,” March 13, 2014	ML14056A151
SECY-09-0082, “Update on Reprocessing Regulatory Framework-Summary of Gap Analysis,” May 28, 2009	ML091520280
SECY-11-0163, “Reprocessing Rulemaking – Draft Regulatory Basis and Path Forward,” November 18, 2011	ML113210386

NEI White Paper, “Regulatory Framework for NRC Licensed Recycling Facility,” December 19, 2008	ML083590114 (Package)
Draft regulatory basis, “SECY-11-0163 - Enclosure: Draft Regulatory Basis for Licensing and Regulating Reprocessing Facilities,” November 18, 2011	ML112081702
NRC letter, “Response to NEI - ISA Considerations and Designation of IROFS for NPH-initiated Events,” February 14, 2025	ML24241A119
NUREG 6407, “Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety,” February 1996	ML15127A114
NEI letter, “Nuclear Energy Institute (NEI) Input on Recent Executive Orders,” February 10, 2025	ML25058A144
Petition for rulemaking; denial, “Nuclear Energy Institute; Denial of Petition for Rulemaking,” December 11, 2001	66 FR 63964
Petition for rulemaking; notice of docketing and request for comment, “Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material,” October 28, 2014	79 FR 64149
Petition for rulemaking; consideration in the rulemaking process, “Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material,” June 12, 2015	80 FR 33450
Policy statement, “Interim Enforcement Policy for Enforcement Discretion for General Licensee Adoption of Certificate of Compliance Holder-Generated Changes,” August 15, 2025	90 FR 39308
Policy statement, “Interim Enforcement Policy for Dispositioning Violations with Respect to Large Components or Robust Structures Containing Category 1 or Category 2 Quantities of Radioactive Material,” August 23, 2024	89 FR 68083
Policy statement, “Agreement State Program Policy Statement,” October 18, 2017	82 FR 48535
Proposed rule, “Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors,” October 31, 2024	89 FR 86918
Proposed rule, “The Sunset Rule,” December 3,2025	90 FR 55699
Final rule, “Storage of Spent Fuel in NRC-Approved Storage Casks at Power Reactor Sites,” July 18, 1990	55 FR 29181

Final rule, “Expand Applicability of Part 72 to Holders of, and Applicants for, Certificates of Compliance,” October 15, 1999	64 FR 56121
Final rule, “Clarification and Addition of Flexibility,” August 21, 2000	65 FR 50606
Regulatory guide, “Guidance for Fuel Cycle Facility Change Processes,” January 6, 2012	77 FR 823
Executive Order 12866, “Regulatory Planning and Review,” October 4, 1993	58 FR 51735
Executive Order 14154, “Unleashing American Energy,” January 29, 2025	90 FR 8353
Executive Order 14192, “Unleashing Prosperity Through Deregulation,” February 6, 2025	90 FR 9065
Executive Order 14294, “Fighting Overcriminalization in Federal Regulations,” May 14, 2025	90 FR 20363
NRC Enforcement Policy, August 12, 2025	ML25224A097
Presidential Memorandum, “Plain Language in Government Writing,” June 10, 1998	63 FR 31885

The NRC may post materials related to this document, including public comments, on the Federal rulemaking website at https://www.regulations.gov under Docket ID NRC-2025-1370. In addition, the Federal rulemaking website allows members of the public to receive alerts when changes or additions occur in a docket folder. To subscribe: (1) navigate to the docket folder (NRC-2025-1370); (2) click the “Subscribe” link; and (3) enter an email address and click on the “Subscribe” link.

List of Subjects

10 CFR Part 30

Byproduct material, Criminal penalties, Government contracts, Intergovernmental relations, Isotopes, Nuclear energy, Nuclear materials, Penalties, Radiation protection, Reporting and recordkeeping requirements, Whistleblowing.

10 CFR Part 37

Byproduct material, Criminal penalties, Exports, Hazardous materials transportation, Imports, Licensed material, Nuclear materials, Penalties, Radioactive materials, Reporting and recordkeeping requirements, Security measures.

10 CFR Part 40

Criminal penalties, Exports, Government contracts, Hazardous materials transportation, Hazardous waste, Nuclear energy, Nuclear materials, Penalties, Reporting and recordkeeping requirements, Source material, Uranium, Whistleblowing.

10 CFR Part 51

Administrative practice and procedure, Environmental impact statements, Hazardous waste, Nuclear energy, Nuclear materials, Nuclear power plants and reactors, Reporting and recordkeeping requirements.

10 CFR Part 70

Classified information, Criminal penalties, Emergency medical services, Hazardous materials transportation, Material control and accounting, Nuclear energy, Nuclear materials, Packaging and containers, Penalties, Radiation protection, Reporting and recordkeeping requirements, Scientific equipment, Security measures, Special nuclear material, Whistleblowing.

10 CFR Part 72

Administrative practice and procedure, Hazardous waste, Indians, Intergovernmental relations, Nuclear energy, Penalties, Radiation protection, Reporting and recordkeeping requirements, Security measures, Spent fuel, Whistleblowing.

10 CFR Part 140

Insurance, Intergovernmental relations, Nuclear materials, Nuclear power plants and reactors, Penalties, 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 proposing to amend 10 CFR parts 30, 37, 40, 51, 70, 72 and 140:

PART 30 - RULES OF GENERAL APPLICABILITY TO DOMESTIC LICENSING OF BYPRODUCT MATERIAL

1. The authority citation for part 30 continues to read as follows:

Authority: Authority: Atomic Energy Act of 1954, secs. 11, 81, 161, 181, 182, 183, 184, 186, 187, 223, 234, 274 (42 U.S.C. 2014, 2111, 2201, 2231, 2232, 2233, 2234, 2236, 2237, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); 44 U.S.C. 3504 note.

2. In § 30.32, revise paragraph (f) to read as follows:

§ 30.32 Application for specific licenses.

* * * * *

(f) Any application for license under this part must include the environmental information required by part 51 of this chapter.

* * * * *

3. In § 30.33, revise paragraph (a)(5) to read as follows:

§ 30.33 General requirements for issuance of specific licenses.

* * * * *

(a) * * *

(5) In the case of an application for a license to receive and possess byproduct material for the conduct of any activity that the NRC determines will significantly affect the quality of the environment, the Director, Office of Nuclear Material Safety and Safeguards or designee, on the basis of information filed and evaluations made pursuant

to part 51 of this chapter, has concluded that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. Commencement of construction prior to this conclusion is undertaken by the applicant at its own risk. Commencement of construction as defined in § 30.4 of this part may include non-construction activities if the activity has a reasonable nexus to radiological safety and security.

* * * * *

PART 37 - PHYSICAL PROTECTION OF CATEGORY 1 AND CATEGORY 2 QUANTITIES OF RADIOACTIVE MATERIAL

4. The authority citation for part 37 continues to read as:

Authority: Authority: Atomic Energy Act of 1954, secs. 11, 53, 81, 103, 104, 147, 148, 149, 161, 182, 183, 223, 234, 274 (42 U.S.C. 2014, 2073, 2111, 2133, 2134, 2167, 2168, 2169, 2201, 2232, 2233, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 202 (42 U.S.C. 5841, 5842); 44 U.S.C. 3504 note.

5. In § 37.5, add in alphabetical order the definitions for *Large component* and *Robust structure* to read as follows:

§37.5 Definitions.

* * * * *

Large component means an item weighing 2,000 kg (4,409 lbs) or more, but not containing either discrete sources or *ion exchange* resins. Large components typically include steam generators, steam dryers, turbine rotors, reactor vessels, reactor vessel heads, reactor coolant pumps, and shielding blocks.

* * * * *

Robust structure means a closed concrete bunker or modular vault, for which access to the radioactive materials contained within the structure is gained only through the use of heavy equipment to remove structural components or large access blocks that weigh 2,000 kg (4,409 lbs) or more.

* * * * *

6. In § 37.11, revise paragraph (c) introductory text and add paragraph (d) to read as follows:

§ 37.11 Specific exemptions.

* * * * *

(c) A licensee that possesses radioactive waste containing category 1 or category 2 quantities of radioactive material that does not contain discrete sources or ion-exchange resins, or is activated material weighing greater than 2,000 kg (4,409 lbs), is exempt from the requirements of subparts B, C, and D of this part. The licensee must, instead, implement the following requirements to secure the radioactive waste:

* * * * *

(d) A licensee is exempt from the requirements of subparts B, C, and D of this part to the extent its category 1 or category 2 quantities of radioactive material is a large component or is contained within a robust structure. The licensee must satisfy the following requirements to rely upon this exemption:

(1) The licensee identifies in writing those large components and robust structures containing category 1 or category 2 quantities of radioactive material; and

(2) The licensee has an approved 10 CFR part 73 security plan or a written 10 CFR part 37 security plan that provides security measures adequate to detect, assess, and respond to actual or attempted theft or diversion, as well as a written analysis that considers the time needed to accomplish these activities given the proximity and mobility of the equipment available for the large components and robust structures identified in accordance with paragraph (d)(1) of this section; and

(3) The licensee has a written analysis documenting that the measures in this section do not decrease the effectiveness of the 10 CFR part 73 security plan.

* * * * *

PART 40 – DOMESTIC LICENSING OF SOURCE MATERIAL

7. The authority citation for part 40 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 62, 63, 64, 65, 69, 81, 83, 84, 122, 161, 181, 182, 183, 184, 186, 187, 193, 223, 234, 274, 275 (42 U.S.C. 2092, 2093, 2094, 2095, 2099, 2111, 2113, 2114, 2152, 2201, 2231, 2232, 2233, 2234, 2236, 2237, 2243, 2273, 2282, 2021, 2022); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); Uranium Mill Tailings Radiation Control Act of 1978, sec. 104 (42 U.S.C. 7914); 44 U.S.C. 3504 note.

8. In § 40.31, revise paragraph (f) to read as follows:

§ 40.31 Application for specific licenses.

* * * * *

(f) Any application for license under this part must include the environmental information required by part 51 of this chapter.

* * * * *

9. In § 40.32, revise paragraph (e) to read as follows:

§ 40.32 General requirements for issuance of specific licenses.

* * * * *

(e) In the case of an application for the conduct of any activity, other than for a license for a uranium enrichment facility, that the NRC determines will significantly affect the quality of the environment, the Director, Office of Nuclear Material Safety and Safeguards or designee, on the basis of information filed and evaluations made pursuant to part 51 of this chapter, has concluded that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. Commencement of construction prior to this conclusion is undertaken by the applicant at its own risk. Commencement of construction as defined in § 40.4 of this part may include

non-construction activities if the activity has a reasonable nexus to radiological safety and security.

* * * * *

PART 51—ENVIRONMENTAL PROTECTION REGULATIONS FOR DOMESTIC LICENSING AND RELATED REGULATORY FUNCTIONS

10. The authority citation for part 51 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 161, 193 (42 U.S.C. 2201, 2243); Energy Reorganization Act of 1974, secs. 201, 202 (42 U.S.C. 5841, 5842); National Environmental Policy Act of 1969 (42 U.S.C. 4332, 4334, 4335); Nuclear Waste Policy Act of 1982, secs. 144(f), 121, 135, 141, 148 (42 U.S.C. 10134(f), 10141, 10155, 10161, 10168); 44 U.S.C. 3504 note.

Sections 51.20, 51.30, 51.60, 51.80, and 51.97 also issued under Nuclear Waste Policy Act secs. 135, 141, 148 (42 U.S.C. 10155, 10161, 10168).

Section 51.22 also issued under Atomic Energy Act sec. 274 (42 U.S.C. 2021) and under Nuclear Waste Policy Act sec. 121 (42 U.S.C. 10141).

Sections 51.43, 51.67, and 51.109 also issued under Nuclear Waste Policy Act sec. 114(f) (42 U.S.C. 10134(f)).

11. In § 51.22, revise paragraph (a)(12) to read as follows:

§ 51.22 Criterion for categorical exclusion; identification of licensing and regulatory actions eligible for categorical exclusion or otherwise not requiring environmental review.

(a) * * *

(12) Issuance of certificates for new, amended, revised, or renewed certificates of compliance for cask designs used for spent fuel storage.

* * * * *

PART 70 - DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL

12. The authority citation for part 70 is revised to read as follows:

Authority: Atomic Energy Act secs. 51, 53, 102, 103, 104, 107, 161, 182, 183, 185, 189, 193, 223, 234 (42 U.S.C. 2071, 2073, 2132, 2133, 2134, 2137, 2201, 2232, 2233, 2235, 2239, 2243, 2273, 2282, 2297f); secs. 201, 202, 204, 206, 211 (42 U.S.C. 5841, 5842, 5845, 5846, 5851); Government Paperwork Elimination Act sec. 1704 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 194 (2005).

Sections 70.1(c) and 70.20a(b) also issued under secs. 135, 141, Pub. L. 97-425, 96 Stat. 2232, 2241 (42 U.S.C. 10155, 10161).

Section 70.21(g) also issued under Atomic Energy Act sec. 122 (42 U.S.C. 2152). Section 70.31 also issued under Atomic Energy Act sec. 57(d) (42 U.S.C. 2077(d)). Sections 70.36 and 70.44 also issued under Atomic Energy Act sec. 184 (42 U.S.C. 2234). Section 70.81 also issued under Atomic Energy Act secs. 186, 187 (42 U.S.C. 2236, 2237). Section 70.82 also issued under Atomic Energy Act sec. 108 (42 U.S.C. 2138).

13. In § 70.1, remove and reserve paragraph (d), and add paragraph (f) to read as follows:

§ 70.1 Purpose.

* * * * *

(d) [Reserved]

* * * * *

(f) The regulations in this part establish requirements, procedures, and criteria that may be used for the issuance of licenses for a spent fuel reprocessing facility, including issuance of operator licenses, subject to additional requirements, conditions and exemptions, as determined by the Commission on a case-by-case basis.

14. In § 70.4, add in alphabetical order the definitions for *Combined license, Control, Operator license, Pilot fuel line,* and *Spent fuel reprocessing facility* to read as follows:

§ 70.4 Definitions.

***** ***** ***** ***** *****

Combined license, as used in this part, means a combined construction permit and operating license with conditions for a spent fuel reprocessing facility

that is a production facility issued under this part.

* * * * *

Control, as used in §§ 70.22(o) and 70.32(n) of this part with respect to an operator licensing program for a spent fuel reprocessing facility licensed under this part, means an engineered item relied on for safety, the manipulation of which could result in unmitigated high consequences identified in § 70.61(b) of this part to any individual located outside the controlled area identified pursuant to § 70.61(f) of this part.

* * * * *

Operator license means a license issued to an individual under this part for operating a spent fuel reprocessing facility.

* * * * *

Pilot fuel line means a facility authorized by the Department of Energy, at the time of submittal of an application under this part, to produce nuclear fuel for non-commercial purposes for qualified test reactors under the Department's Reactor Pilot Program.

* * * * *

Spent fuel reprocessing facility means a facility that separates irradiated fuel for the purpose of recovering fissionable material, including a facility that meets the definition of a production facility in § 50.2 of this chapter, excluding subsection (1) which states "[a]ny nuclear reactor designed or used primarily for the formation of plutonium or uranium-233."

* * * * *

15. In § 70.5, add paragraphs (b)(1)(viii) and (ix) to read as follows:

§ 70.5 Communications.

* * * * *

(b) * * *

(1) * * *

(viii) Spent fuel reprocessing facilities licensed under this part.

(ix) Operator licenses for spent fuel reprocessing facilities.

* * * * *

16. In § 70.11, revise paragraph (c), and add paragraph (d) to read as follows:

§ 70.11 Persons using special nuclear material under certain Department of Energy and Nuclear Regulatory Commission contracts.

* * * * *

(c) the use or operation of nuclear reactors or other nuclear devices in a United States Government-owned vehicle or vessel. In addition to the foregoing exemptions, and subject to the requirement for licensing of Department facilities and activities pursuant to section 202 of the Energy Reorganization Act of 1974, any prime contractor or subcontractor of the Department or the Commission is exempt from the requirements for a license set forth in section 53 of the Act and from the regulations in this part to the extent that such prime contractor or subcontractor receives title to, owns, acquires, delivers, receives, possesses, uses, or transfers special nuclear material under his prime contract or subcontract when the activity conducted by the prime contractor or subcontractor is authorized by law; and that, under the terms of the contract or subcontract there is adequate assurance that the work thereunder can be accomplished without undue risk to the public health and safety; or

(d) the construction and operation of pilot fuel lines as defined in § 70.4 of this part.

17. In § 70.21, revise paragraphs (a), (e), and (f), and remove and reserve paragraph (h) to read as follows:

§ 70.21 Filing.

(a)(1) A person may apply for any license issued under this part by filing the application in accordance with the instructions in § 70.5(a) of this part. If the application is on paper, only one copy need be provided. If the application is to be submitted electronically, see guidance for electronic submissions to the Commission.

(2) [Reserved]

(3) Information contained in previous applications, statements, or reports filed with the Commission may be incorporated by reference if the references are clear and specific.

(4) An application for a combined license for a spent fuel reprocessing facility must be executed in a signed original by the applicant or duly authorized officer thereof under oath or affirmation.

* * * * *

(e) Each application for a special nuclear material license, other than a license exempted from part 170 of this chapter, must be accompanied by the fee prescribed in part 170 of this chapter. No fee will be required to accompany an application for renewal or amendment of a license, except as provided in part 170 of this chapter.

(f) Any application for a license under this part must include the environmental information required by part 51 of this chapter.

* * * * *

(h) [Reserved]

18. In § 70.22, revise paragraphs (a)(7), (b), (f), and (n), and add paragraphs (o),(p), (q), and (r) to read as follows:

§ 70.22 Contents of applications.

(a)* * *

(7) A description of equipment and facilities which will be used by the applicant to protect health and minimize danger to life or property (such as handling devices, working areas, shields, measuring and monitoring instruments, devices for the disposal of radioactive effluents, and management and storage of radioactive wastes including high level waste, storage facilities, criticality accident alarm systems, etc.);

* * * * *

(b) Each application for a license to possess special nuclear material, to possess equipment capable of enriching uranium, to operate a uranium enrichment facility or a spent fuel reprocessing facility licensed under this part, to possess and use at any one time and location special nuclear material in a quantity exceeding one effective kilogram, except for applications for use as sealed sources and for those uses involved in the operation of a nuclear reactor licensed pursuant to part 50 or 53 of this chapter and those involved in a waste disposal operation, must contain a full description of the applicant's program for control and accounting of such special nuclear material or enrichment equipment that will be in the applicant's possession under license to show how compliance with the requirements of §§ 74.31, 74.33, 74.41, or 74.51 of this chapter, as applicable, will be accomplished.

* * * * *

(f) Each application for a license to possess and use special nuclear material in a plutonium processing and fuel fabrication plant or a spent fuel reprocessing facility must include a quality assurance program that meets the criteria in appendix B of part 50 or 53 of this chapter.

* * * * *

(n) A license application that involves the use of special nuclear material in a uranium enrichment facility or a spent fuel reprocessing facility must include the applicant's provisions for liability insurance.

(o) Each application for a spent fuel reprocessing facility must contain a proposed operator licensing program if operation of the facility involves the manipulation of a control as defined in § 70.4 of this part. The proposed operator licensing program shall include a description of the training, examination, and proficiency programs necessary to implement the operator licensing program.

(p) Each application for a combined license for a spent fuel reprocessing facility must contain proposed technical specifications; and proposed inspections, tests, and analyses, including those applicable to emergency planning, and proposed acceptance criteria that are necessary and sufficient to provide reasonable assurance that if the inspections, tests, and analyses are performed, and the acceptance criteria are met, the facility will be constructed and operated in conformity with the combined license, the provisions of the Act, and the Commission’s rules and regulations.

(q) Each application for a spent fuel reprocessing facility, in addition to other information required under this part, must also contain any proposed exemption requests, and any proposed license conditions as necessary on a case-by-case basis to meet statutory requirements and provide for reasonable assurance of adequate protection of public health and safety and common defense and security.

(r) Each application for a license under this part from an applicant that is authorized by the Department for a pilot fuel line, in addition to other information required under this part, must identify how aspects of the authorization satisfy NRC regulations and statutory provisions, including how any changes to the facility design and operations address applicable NRC requirements and statutory provisions.

19. In § 70.23, revise paragraphs (a)(7), (a)(8), (a)(11), and (a)(12), add paragraphs (a)(13) through (a)(16), and remove and reserve paragraph (b), to read as follows:

§ 70.23 Requirements for the approval of applications.

(a) * * *

(7) Where the proposed activity is an activity, other than construction and operation of a uranium enrichment facility or a spent fuel reprocessing facility for which the NRC determines will significantly affect the quality of the environment, the Director, Office of Nuclear Material Safety and Safeguards or designee, on the basis of information filed and evaluations made pursuant to part 51 of this chapter, has concluded that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. Commencement of construction prior to this conclusion is undertaken by the applicant at its own risk. Commencement of construction as defined in § 70.4 of this part may include non-construction activities if the activity has a reasonable nexus to radiological safety and security.

(8) Where the proposed activity is construction and operation of a uranium enrichment facility or a spent fuel reprocessing facility, the Director, Office of Nuclear Material Safety and Safeguards or designee, before commencement of construction of the plant or facility in which the activity will be conducted, on the basis of information filed and evaluations made pursuant to part 51 of this chapter, has concluded, that the action called for is the issuance of the proposed license, with any appropriate conditions to protect environmental values. Commencement of construction prior to this conclusion is grounds for denial to possess and use special nuclear material in the plant or facility. Commencement of construction as defined in § 70.4 of this part may include non-construction activities if the activity has a reasonable nexus to radiological safety and security.

* * * * *

(11) Where the proposed activity is processing and fuel fabrication, scrap recovery, conversion of uranium hexafluoride, or involves the use of special nuclear material in a uranium enrichment facility or a spent fuel reprocessing facility, the applicant's proposed emergency plan is adequate.

(12) For proposed activities under this part where it is statutorily required or otherwise determined to be necessary, applicable provisions of part 140 of this chapter have been satisfied.

(13) Where the proposed activity is use of special nuclear material in a plutonium processing and fuel fabrication plant or a spent fuel reprocessing facility, the QA program satisfies the criteria in appendix B of part 50 of this chapter.

(14) Where the proposed activity is use of special nuclear material in a spent fuel reprocessing facility, all relevant statutory provisions and appropriate regulations, including conditions required under this part, have been satisfied.

(15) Where the application is for a license under this part for a facility that is also a Department of Energy authorized pilot fuel line, all relevant statutory provisions and appropriate regulations, including the conditions required under this part that were not satisfied by the Department of Energy’s authorization, have been satisfied.

(16) Where the proposed activity is a licensed operator for a spent fuel reprocessing facility, the applicant meets the requirements of the spent fuel reprocessing facility’s approved operator licensing program.

(b) [Reserved]

20. Revise § 70.23a to read as follows:

§ 70.23a Hearings required.

The Commission will hold a hearing on each application for issuance of a license for construction and operation of a uranium enrichment facility or a combined license for a spent fuel reprocessing facility. The Commission will publish public notice of the hearing in the Federal Register at least thirty (30) days before the hearing.

21. In § 70.24, revise paragraph (a) to read as follows:

§ 70.24 Criticality accident requirements.

(a) Each licensee authorized to possess special nuclear material in a quantity exceeding 700 grams of contained uranium-235, 520 grams of uranium-233, 450 grams of plutonium, 1,500 grams of contained uranium-235 if no uranium enriched to more than 4 percent by weight of uranium-235 is present, 450 grams of any combination thereof, or one-half such quantities if massive moderators or reflectors made of graphite, heavy water or beryllium may be present, must maintain in each area in which such licensed special nuclear material is handled, used, or stored, a monitoring system meeting the requirements of paragraph (a)(1) and using gamma- or neutron-sensitive radiation detectors that will energize clearly audible alarm signals if accidental criticality occurs, unless it is demonstrated that criticality is not credible based on the laws of physics. This section is not intended to require underwater monitoring when special nuclear material is handled or stored beneath water shielding or to require monitoring systems when special nuclear material is being transported when packaged in accordance with the requirements of part 71 of this chapter.

(1) * * *

(2) [Reserved]

(3) The licensee must maintain emergency procedures for each area in which criticality is credible to ensure that all personnel withdraw to an area of safety upon the sounding of the alarm. These procedures must include the conduct of drills to familiarize

personnel with the evacuation plan, and designation of responsible individuals for determining the cause of the alarm, and placement of radiation survey instruments in accessible locations for use in such an emergency. The licensee must retain a copy of current procedures for each area as a record for as long as licensed special nuclear material is handled, used, or stored in the area. The licensee must retain any superseded portion of the procedures for three years after the portion is superseded.

* * * * *

22. In § 70.25, revise paragraph (a) and add paragraph (a)(3) to read as follows:

§ 70.25 Financial assurance and recordkeeping for decommissioning.

(a) Each applicant for a specific license of the types described in paragraphs (a)(1), (2), and (3) of this section must submit a decommissioning funding plan as described in paragraph (e) of this section.

* * * * *

(3) A specific license, including a combined license, for a spent fuel reprocessing facility.

* * * * *

23. In § 70.31, revise paragraph (e) and add paragraph (f) to read as follows:

§ 70.31 Issuance of licenses.

* * * * *

(e) No combined license for a spent fuel reprocessing facility or a license to construct and operate a uranium enrichment facility may be issued until a hearing is completed and decision issued on the application.

(f) Each combined license for a spent fuel reprocessing facility will include the required inspections, tests, and analyses, including those for emergency planning, that

the licensee must perform, and that, if met, are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license.

24. In § 70.32:

a. In paragraph (c)(2)(i), remove the phrase “Two months” and add in its place the phrase “Four months”;

b. In paragraph (c)(2)(ii), remove the phrase “Six months” and add in its place the phrase “Twelve months”;

c. In paragraphs (d) and (e), remove the phrase “two months” and add in its place the phrase “twelve months”; and

d. Add paragraphs (l), (m), and (n).

The additions read as follows:

§ 70.32 Conditions of licenses.

*** * * * ***

(l) No person may commence operation of a spent fuel reprocessing facility until the Commission verifies through inspection that the facility has been constructed and will operate in accordance with the requirements of the license.

(m) A combined license for a spent fuel reprocessing facility will be issued on condition that the Commission has ensured that the prescribed inspections, tests, and analyses are performed. No person may commence operation under a combined license for a spent fuel reprocessing facility until the Commission finds that the acceptance criteria identified within the combined license have been met. The Commission shall publish notice of the inspection results in the *Federal Register*.

(n) The Commission shall prescribe conditions necessary to determine the qualifications of, and issue operator licenses to, operators of spent fuel reprocessing

facilities if operation of the facility involves the manipulation of a control, as defined in § 70.4 of this part. A spent fuel reprocessing facility licensee may not permit the manipulation of the controls of any facility by anyone who is not a licensed operator except in cases where a non-licensed operator manipulates the controls under the direction and in the presence of a licensed operator.

25. In § 70.40, revise the introductory text and paragraph (a) to read as follows:

§ 70.40 Ineligibility of certain applicants.

A license may not be issued to the Corporation, or to an applicant for a spent fuel reprocessing facility, if the Commission determines that:

(a) The Corporation, or the applicant for a spent fuel reprocessing facility, is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; or

***** ***** ***** ***** *****

26. In § 70.42, revise paragraph (d)(3) to read as follows:

§ 70.42 Transfer of special nuclear material.

* * * * *

(d) ***** ***** *****

(3) For emergency shipments the transferor may accept oral certification by the transferee that he or she is authorized by license or registration certification to receive the type, form, and quantity of special nuclear material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date, provided that the oral certification is confirmed in writing within 10 days, through one of the methods described within this section. The transferor must retain the written confirmation of the oral certification for three years from the date of receipt of the confirmation;

* * * * *

27. Revise § 70.50 to read as follows:

§ 70.50 Reporting requirements.

Each licensee must report the applicable events as described in appendix A to part 70 of this chapter.

§ 70.52 [Reserved]

28. Remove and reserve § 70.52.

29. Revise § 70.59 to read as follows:

§ 70.59 Effluent monitoring reporting requirements.

Within 60 days after January 1 of each year, and using an appropriate method listed in § 70.5(a) of this part, each licensee authorized to possess and use special nuclear material for processing and fuel fabrication, scrap recovery, conversion of uranium hexafluoride, or in a spent fuel reprocessing facility, or uranium enrichment facility must submit a report addressed: ATTN: Document Control Desk, Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, with a copy to the appropriate NRC Regional Office shown in appendix D to part 20 of this chapter. The report must specify the quantity of each of the principal radionuclides released to unrestricted areas in liquid and gaseous effluents during the previous 12 months of operation, and such other information as the Commission may require to estimate maximum potential annual radiation doses to the public resulting from effluent releases. If quantities of radioactive materials released during the reporting periods are significantly above the licensee's design objectives previously reviewed as part of the licensing action, the report must cover this specifically.

On the basis of these reports and any additional information the Commission may obtain from the licensee or others, the Commission may from time to time require the licensee to take such action as the Commission deems appropriate.

30. Revise § 70.60 to read as follows:

§ 70.60 Applicability.

The regulations in § 70.61 through § 70.76 of this part apply, in addition to other applicable Commission regulations, to each applicant or licensee that is or plans to be authorized to possess greater than a critical mass of special nuclear material, and engaged in enriched uranium processing, fabrication of uranium fuel or fuel assemblies, uranium enrichment, enriched uranium hexafluoride conversion, plutonium processing, fabrication of mixed-oxide fuel or fuel assemblies, scrap recovery of special nuclear material, or any other activity that the Commission determines could significantly affect public health and safety. For a spent fuel reprocessing facility applicant or licensee, additional requirements beyond those described in § 70.61 through § 70.76 of this part may be necessary, as determined on a case-by-case basis, and may be required by this part or other parts of this chapter, license condition or order. The regulations in § 70.61 through § 70.76 do not apply to decommissioning activities performed pursuant to other applicable Commission regulations including § 70.25 and § 70.38 of this part. Also, the regulations in § 70.61 through § 70.76 of this part do not apply to activities that are licensed by the Commission pursuant to other parts of this chapter.

31. In § 70.61, revise paragraph (e) to read as follows:

§ 70.61 Performance requirements.

*** * * * ***

(e) Each engineered or administrative control or control system necessary to comply with paragraphs (b), (c), or (d) of this section must satisfy either (e)(1) or (2).

(1) The control or control system must be designated as an item relied on for safety. The safety program, established and maintained pursuant to § 70.62 of this subpart, must ensure that each item relied on for safety will be available and reliable to perform its intended function when needed and in the context of the performance requirements of this section.

(2) Structures credited with preventing or mitigating natural phenomena-initiated accident sequences may be credited to demonstrate compliance with the performance requirements in paragraphs (b), (c), and (d) of § 70.61 of this part without being designated as an item relied on for safety, if all of the following are met:

(i) The structures are designed in accordance with acceptable standards that demonstrate the risks of natural phenomena-initiated accident sequences are appropriately limited per the performance requirements in paragraphs (b), (c), and (d) of § 70.61 of this part;

(ii) The credit is only applied to the structural stability safety function of a structure and does not apply to any other safety function; and

(iii) The aspects of the structures that are credited to meet the performance requirements are maintained available and reliable subject to the requirements for management measures in § 70.62(d) of this part.

* * * * *

32. In § 70.62, revising paragraph (c)(1)(vi) and remove and reserve paragraph (c)(3) to read as follows:

§ 70.62 Safety program and integrated safety analysis.

* * * * *

(c) * * *

(1) * * *

(vi) Each item relied on for safety identified pursuant to § 70.61(e)(1) of this part and each structure addressed in § 70.61(e)(2) of this part, the characteristics of its preventive, mitigative, or other safety function, and the assumptions and conditions under which the item is relied upon to support compliance with the performance requirements of § 70.61 of this part.

* * * * *

(3) [Reserved]

* * * * *

33. In § 70.64, revise paragraphs (a) introductory text, (a)(1) and (a)(8) to read as follows:

§ 70.64 Requirements for new facilities or new processes at existing facilities.

(a) *Baseline design criteria*. Each prospective applicant or licensee must address the following baseline design criteria in the design of new facilities. Each existing licensee must address the following baseline design criteria in the design of new processes at existing facilities that require a license amendment under § 70.72 of this part. The baseline design criteria must be applied to the design of new facilities and new processes, but do not require retrofits to existing facilities or existing processes (e.g., those housing or adjacent to the new process); however, all facilities and processes must comply with the performance requirements in § 70.61 of this part. Licensees must maintain the application of these criteria unless the analysis performed pursuant to §

70.62(c) of this part demonstrates that a given item is not relied on to meet the performance requirements of § 70.61 of this part.

(1) *Quality standards and records*. The design must be developed and implemented in accordance with management measures, to provide adequate assurance that items relied on for safety, and structures addressed in § 70.61(e)(2) of this part, will be available and reliable to perform their function when needed. Appropriate records of these items must be maintained by or under the control of the licensee throughout the life of the facility.

* * * * *

(8) *Inspection, testing, and maintenance*. The design of items relied on for safety, and structures addressed in § 70.61(e)(2) of this part, must provide for adequate inspection, testing, and maintenance, to ensure their availability and reliability to perform their function when needed.

* * * * *

34. In § 70.65, revise paragraph (b)(6) to read as follows:

§ 70.65 Additional content of applications.

* * * * *

(b) * * *

(6) A list briefly describing each item relied on for safety which is identified pursuant to § 70.61(e)(1) and any structures addressed in § 70.61(e)(2) of this part in sufficient detail to understand their functions in relation to the performance requirements of § 70.61of this part;

* * * * *

35. In § 70.72, revise paragraphs (c)(3) through (c)(5) to read as follows:

§ 70.72 Facility changes and change process.

* * * * *

(c) * * *

(3) Does not degrade the safety function of a structure addressed in 70.61(e)(2) of this part;

(4) Does not alter any item relied on for safety, listed in the integrated safety analysis summary, that is the sole item preventing or mitigating an accident sequence that exceeds the performance requirements of § 70.61 of this part; and

(5) Is not otherwise prohibited by this section, license condition, or order.

* * * * *

36. Revise § 70.73 to read as follows:

§ 70.73 Renewal of licenses.

Applications for renewal of a license must be filed in accordance with §§ 2.109, 70.21, 70.22, 70.33, 70.38, and 70.65 of this chapter. A renewal application should be narrowly focused on the scope of the renewal and contain as few documents as possible. Information contained in previous applications, statements, or reports filed with the Commission under the license may be incorporated by reference, provided that these references are clear and specific.

§ 70.74 [Reserved]

37. Remove and reserve § 70.74.

38. Revise and republish appendix A to part 70 to read as follows:

Appendix A to Part 70 – Reportable Safety Events.

(a) One hour reports. Events to be reported to the NRC Operations Center within 1 hour of discovery, supplemented with the information in (e)(1) of this appendix as it becomes available, followed by a written report within 60 days:

(1) An inadvertent nuclear criticality (all facilities, including part 50 of this chapter facilities).

(2) An acute intake by an individual of 30 mg or greater of uranium in a soluble form.

(3) An acute chemical exposure to an individual from licensed material or hazardous chemicals produced from licensed material that exceeds the quantitative standards established to satisfy the requirements in § 70.61(b)(4) of this part.

(4) An event or condition such that no items relied on for safety, as documented in the integrated safety analysis summary, remain available and reliable, in an accident sequence evaluated in the integrated safety analysis, to perform their function:

(i) In the context of the performance requirements in § 70.61(b) and § 70.61(c) of this part, or

(ii) Prevent a nuclear criticality accident (i.e., loss of all controls in a particular sequence).

(b) Four hour reports. Within 4 hours of discovery, supplemented with the information in (e)(1) of this appendix as it becomes available, report events that prevent immediate protective actions necessary to avoid exposures to radiation or radioactive materials that could exceed regulatory limits or releases of licensed material that could exceed regulatory limits (events may include fires, explosions, toxic gas releases, etc.).

(c) Twenty-four hour reports. Within 24 hours of discovery, supplemented with the information in (e)(1) of this appendix as it becomes available, report:

(1) Any event or condition that results in the facility being in a state that was not analyzed, was improperly analyzed, or is different from that analyzed in the integrated

safety analysis, and which results in failure to meet the performance requirements of § 70.61 of this part.

(2) Loss or degradation of items relied on for safety that results in failure to meet the performance requirement of § 70.61of61of61of61 of61of this part, except where other reportability criteria have been approved as defined in the integrated safety analysis and documented in the license application.

(3) An acute chemical exposure to an individual from licensed material or hazardous chemicals produced from licensed materials that exceeds the quantitative standards that satisfy the requirements of § 70.61(c)(4) of this part.

(4) Any natural phenomenon or other external event, including fires internal and external to the facility, that has affected or may have affected the intended safety function or availability or reliability of one or more items relied on for safety or structures identified under 70.61(e) of this part.

(5) An unplanned contamination event that:

(i) Requires access to the contaminated area, by workers or the public, to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area;

(ii) Involves a quantity of material greater than five times the lowest annual limit on intake specified in appendix B of §§ 20.1001-20.2401 of part 20 of this chapter for the material; and

(iii) Has access to the area restricted for a reason other than to allow isotopes with a half-life of less than 24 hours to decay prior to decontamination.

(iv) Exceptions: when the unplanned contamination event occurs in a restricted area which is maintained inaccessible to the public by multiple access controls, the area was controlled as a radioactive material area within a building before the event occurred, the release of radioactive material is contained within the radioactive material area and

no contamination has spread outside the radioactive materials area, licensee personnel trained in contamination control are readily available, equipment and facilities that may be needed for contamination control are readily available, and the otherwise reportable unplanned contamination event is documented in the licensee’s corrective action program.

(6) An event in which equipment is disabled or fails to function as designed when:

(i) The equipment is required by regulation or licensee condition to prevent or mitigate releases exceeding regulatory limits or exposures to radiation and radioactive materials exceeding regulatory limits;

(ii) The equipment is required to be available and operable when it is disabled or fails to function; and

(iii) No redundant equipment is available and operable to perform the required safety function.

(7) An event that requires unplanned medical treatment at an offsite medical facility of an individual with spreadable radioactive contamination on the individual's clothing or body.

(8) An unplanned fire or explosion damaging any licensed material or any device, container, or equipment containing licensed material when:

(i) The quantity of material involved is greater than five times the lowest annual limit on intake specified in appendix B of §§ 20.1001-20.2401 of part 20 of this chapter for the material; and

(ii) The damage affects the integrity of the licensed material or its container.

(d) Written report. Each licensee that makes a report required by this appendix must submit a written follow-up report within 60 days of the initial report. Written reports prepared pursuant to other regulations may be submitted to fulfill this requirement if the

report contains all the necessary information, and the appropriate distribution is made. These written reports must be sent to the NRC's Document Control Desk, using an appropriate method listed in § 70.5(a) of this part, with a copy to the appropriate NRC regional office listed in appendix D to part 20 of this chapter. The reports must include the following:

(i) Complete applicable information required by (e)(1) of this appendix;

(ii) The probable cause of the event, including all factors that contributed to the event and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;

(iii) Corrective actions taken or planned, and the results of any evaluations or assessments; and

(iv) For licensees subject to subpart H of this part, whether the event was identified and evaluated in the integrated safety analysis.

(e) Preparation and submission of reports. Reports made by licensees in response to the requirements of this appendix must be made as follows:

(1) Reports must be made by a knowledgeable licensee representative and by any method that will ensure compliance with the required time period for reporting, such as by telephone at the numbers specified in appendix A to part 73 of this chapter, to the NRC Operations Center. To the extent that the information is available at the time of notification, the information provided in these reports must include:

(i) Caller's name, position title, and call-back telephone number;

(ii) Date, time, and exact location of the event;

(iii) Description of the event, including:

(A) Radiological or chemical hazards involved, including isotopes, quantities, and chemical and physical form of any material released;

(B) Actual or potential health and safety consequences to the workers, the public, and the environment, including relevant chemical and radiation data for actual personnel exposures to radiation or radioactive materials or hazardous chemicals produced from licensed materials (e.g., level of radiation exposure, concentration of chemicals, and duration of exposure);

(C) The sequence of occurrences leading to the event, including degradation or failure of structures, systems, equipment, components, and activities of personnel relied on to prevent potential accidents or mitigate their consequences; and

(D) Whether the remaining structures, systems, equipment, components, and activities of personnel relied on to prevent potential accidents or mitigate their consequences are available and reliable to perform their function;

(iv) External conditions affecting the event;

(v) Additional actions taken by the licensee in response to the event;

(vi) Status of the event (e.g., whether the event is ongoing or was terminated);

(vii) Current and planned site status, including any declared emergency class;

(viii) Notifications, related to the event, that were made or are planned to any local, State, or other Federal agencies; and

(ix) Status of any press releases, related to the event, that were made or are planned.

(2) Follow-up information to the reports must be provided until all information required to be reported in (e)(1) of this appendix is complete.

(3) Each licensee must provide reasonable assurance that reliable communication with the NRC Operations Center is available during each event.

(4) The provisions of this appendix, except for (a)(1), do not apply to licensees subject to § 50.72 or § 53.1630 of this chapter. They do apply to those part 50 or part 53

of this chapter licensees possessing material licensed under part 70 of this chapter that are not subject to the notification requirements in § 50.72 or § 53.1630 of this chapter.

(f) For a spent fuel reprocessing facility, additional reporting requirements beyond those described in this appendix may be necessary, as determined on a case-by-case basis.

PART 72 - LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE, AND REACTOR-RELATED GREATER THAN CLASS C WASTE

39. The authority citation for part 72 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 223, 234, 274 (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2210e, 2232, 2233, 2234, 2236, 2237, 2238, 2273, 2282, 2021); Energy Reorganization Act of 1974, secs. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); National Environmental Policy Act of 1969 (42 U.S.C. 4332); Nuclear Waste Policy Act of 1982, secs. 117(a), 132, 133, 134, 135, 137, 141, 145(g), 148, 218(a) (42 U.S.C. 10137(a), 10152, 10153, 10154, 10155, 10157, 10161, 10165(g), 10168, 10198(a)); 44 U.S.C. 3504 note.

40. In § 72.2, revise paragraphs (a)(1) and (2) to read as follows:

§ 72.2 Scope.

(a) Except as provided in § 72.6(b) of this part, licenses issued under this part are limited to the receipt, transfer, packaging, and possession of:

(1) Power reactor spent fuel to be stored in a complex that is designed and constructed specifically for storage of power reactor spent fuel, other radioactive materials associated with spent fuel storage, and power reactor-related GTCC waste in a solid form in an independent spent fuel storage installation (ISFSI); or

(2) Power reactor spent fuel to be stored in a monitored retrievable storage installation (MRS) owned by DOE that is designed and constructed specifically for the storage of spent fuel, high-level radioactive waste that is in a solid form, other

radioactive materials associated with storage of these materials, and power reactor-related GTCC waste that is in a solid form.

* * * * *

41. In § 72.3, revise the definition of *Spent nuclear fuel or Spent fuel* to read as follows:

§ 72.3 Definitions.

***** ***** ***** ***** *****

Spent nuclear fuel or Spent fuel means fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing.

* * * * *

42. In § 72.42, revise paragraph (b) to read as follows:

§ 72.42 Duration of license; renewal.

* * * * *

(b) Applications for renewal of a license should be filed in accordance with the applicable provisions of subpart B of this part at least 30 days before the expiration of the existing license. The application must also include design basis information as documented in the most recently updated FSAR as required by § 72.70 of this part. Information contained in previous applications, statements, or reports filed with the Commission under the license may be incorporated by reference provided that these references are clear and specific.

* * * * *

43. In § 72.44, revise paragraph (d)(3) to read as follows:

§ 72.44 License conditions.

* * * * *

(d) * * *

(3) An annual report, or reports, be developed and maintained specifying the quantity of each of the principal radionuclides released to the environment in liquid and in gaseous effluents during the previous 12 months. The time between the development of the report, or reports, must be no longer than 12 months. The report, or reports, must include any information that may be required by the Commission to estimate maximum potential annual radiation doses to the public resulting from effluent releases. The report, or reports, must be maintained as records until termination of the license. The technical specifications required by paragraph (d) of this section must include requirements for when such a report, or reports, must be submitted to the Commission as specified in § 72.4 of this part. On the basis of these reports and any additional information that the Commission may obtain from the licensee or others, the Commission may require the licensee to take action as the Commission deems appropriate.

* * * * *

44. In § 72.48, revise paragraphs (a)(2), (a)(4)(iii) and (b) and remove and reserve paragraph (d)(2) to read as follows:

§ 72.48 Changes, tests, and experiments.

(a) * * *

(2) *Departure from a method of evaluation described in the FSAR (as updated) used in establishing the design bases or in the safety analyses* means:

(i) Changing any of the elements of the method described in the FSAR (as updated) unless the analysis results in no more than a minimal increase in the applicable safety margins; or

(ii) Changing from a method described in the FSAR to another method unless that method has been approved by NRC for the intended application or would only have a minor impact on safety.

* * * * *

(4) * * *

(iii) The evaluations included in the FSAR (as updated) for such SSCs which demonstrate that their intended function(s) will be accomplished.

* * * * *

(b) This section applies to:

(1) Each holder of a specific license issued under this part,

(2) Each holder of a Certificate of Compliance (CoC) issued under this part, and

(3) Each holder of a general license prior to initiating site specific, technical changes required from evaluation of §72.212(b)(7) of this part.

* * * * *

(d) * * *

(2) [Reserved]

* * * * *

45. In § 72.122, revise paragraph (h)(1) to read as follows:

§ 72.122 Overall requirements.

* * * * *

(h) * * *

(1) The spent fuel must be protected during storage against degradation, including gross ruptures of the fuel cladding, if used, or the fuel must be otherwise confined such that degradation of the fuel during storage will not pose operational safety

problems with respect to its removal from storage. This may be accomplished by confining the fuel or unconsolidated assemblies or other means as appropriate.

* * * * *

46. In § 72.212, revise paragraphs (b)(1) through (3), (b)(5)(i), and (b)(7) to read as follows:

§ 72.212 Conditions of general license issued under § 72.210.

* * * * *

(b) The general license must:

(1) Notify the Nuclear Regulatory Commission using instructions in § 72.4 of this part at least 30 days before first storage of spent fuel under this general license. The notice may be in the form of a letter, but must contain the licensee's name, address, reactor license and docket numbers, and the name and means of contacting a person responsible for providing additional information concerning spent fuel under this general license. A copy of the submittal must be sent to the administrator of the appropriate Nuclear Regulatory Commission regional office listed in appendix D to part 20 of this chapter.

(2) Register use of each cask with the Nuclear Regulatory Commission no later than 90 days after using that cask to store spent fuel. This registration may be accomplished by submitting a letter using instructions in § 72.4 of this part containing the following information: the licensee's name and address, the licensee's reactor license and docket numbers, the name and title of a person responsible for providing additional information concerning spent fuel storage under this general license, the cask certificate number, the CoC amendment number to which the cask conforms, unless loaded under the initial certificate, cask model number, and the cask identification number. A copy of

each submittal must be sent to the administrator of the appropriate Nuclear Regulatory Commission regional office listed in appendix D to part 20 of this chapter.

(3) Ensure that each cask used by the general licensee conforms to the terms, conditions, and specifications of an issued CoC or amended CoC.

* * * * *

(5) * * *

(i) The cask once loaded with spent fuel or once the changes authorized by an amended CoC have been applied, will conform to the terms, conditions, and specifications of an issued CoC or an amended CoC.

* * * * *

(7) Evaluate any site specific changes to the written evaluations required by paragraphs (b)(5) and (b)(6) of this section using the requirements of § 72.48(c) of this part. A copy of this record must be retained until spent fuel is no longer stored under the general license issued under § 72.210 of this part.

* * * * *

47. Revise § 72.214 to read as follows:

§ 72.214 Issued certificates of compliance.

Dry storage systems are approved for the storage of spent fuel under the conditions in the issued Certificates of Compliance. The list of issued Certificates of Compliance is available here: https://www.nrc.gov/waste/spent-fuel-storage/designs.

PART 140 – FINANCIAL PROTECTION REQUIREMENTS AND INDEMNITY AGREEMENTS

48. The authority citation for part 140 continues to read as follows:

Authority: Atomic Energy Act of 1954, secs. 161, 170, 223, 234 (42 U.S.C. 2201, 2210, 2273, 2282); Energy Reorganization Act of 1974, secs. 201, 202 (42 U.S.C. 5841, 5842); 44 U.S.C. 3504 note.

49. In § 140.2, add paragraph (a)(5) to read as follows:

§ 140.2 Scope.

(a) * * *

(5) To each person licensed pursuant to part 70 of this chapter to construct and operate a spent fuel reprocessing facility.

* * * * *

50. In § 140.7, revise paragraph (c) to read as follows:

§ 140.7 Fees.

* * * * *

(c)(1) Each spent fuel reprocessing facility licensee required to enter into an indemnification agreement must pay an indemnity agreement fee to the Commission in the amount determined by the Commission on a case-by-case basis, depending upon the specifics of each application.

(2) Each person licensed to possess and use plutonium in a plutonium processing and fuel fabrication plant must pay to the Commission a fee of $5,000 per year for indemnification. This fee is for the period beginning with the date on which the applicable indemnity agreement is effective.

* * * * *

51. Add § 140.13c to read as follows:

§ 140.13c Amount of liability insurance required for spent fuel reprocessing facilities.

Each holder of a license issued under part 70 of this chapter for a spent fuel reprocessing facility that involves the use of source material or special nuclear material is required to have and maintain liability insurance. The liability insurance must be the type and in the amounts the Commission considers appropriate to cover liability claims arising out of any occurrence within the United States that causes, within or outside the United States, bodily injury, sickness, disease, death, loss of or damage to property, or loss of use of property arising out of or resulting from the radioactive, toxic, explosive, or other hazardous properties of chemical compounds containing source material or special nuclear material. Proof of liability insurance must be filed with the Commission as required by § 140.15 of this part before issuance of a license for a spent fuel reprocessing facility under part 70 of this chapter.

Dated: JUNE XX, 2026.

For the Nuclear Regulatory Commission.

Carrie Safford,
Secretary of the Commission.