[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Docket No. PRM-50-94

[NRC-2010-0004]

Petition for Rulemaking Submitted by Sherwood Martinelli

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for rulemaking; denial.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC or the Commission) is denying a petition for rulemaking (PRM) submitted by Mr. Sherwood Martinelli (the petitioner) (PRM-50-94). The petitioner requests that the NRC amend its regulations as they relate to decommissioning and decommissioning funding. Specifically, the petitioner requests that the NRC revise its reporting requirements, restrict funding mechanisms, require deposits within 90 days to cover shortfalls regardless of cause, amend the definition of the safe storage (SAFSTOR) decommissioning option, and eliminate the ENTOMB decommissioning option.

DATES: The docket for the petition for rulemaking, PRM-50-94, is closed on **[insert date of publication in the *Federal Register*]**.

ADDRESSES: You can access publicly available documents related to this petition for rulemaking using the following methods:

- **NRC's Public Document Room (PDR):** The public may examine and have copied, for a fee, publicly available documents at the NRC's PDR, O-1 F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** Publicly available documents created or received at the NRC are available online at the NRC Library at **http://www.nrc.gov/reading-rm/adams.html**. From this page, the public can gain entry into ADAMS, which provides text and image files of NRC's public documents. If you do not have access to ADAMS, or if there are problems in accessing the documents located in ADAMS, contact the NRC PDR reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to **pdr.resource@nrc.gov**.

- **Federal rulemaking Web site:** Public comments and supporting materials related to this petition for rulemaking can be found at **http://www.regulations.gov** by searching on Docket ID: **NRC-2010-0004**. Address questions about NRC dockets to Carol Gallagher, telephone 301-492-3668; e-mail **Carol.Gallagher@nrc.gov**.

FOR FURTHER INFORMATION CONTACT: Aaron L. Szabo, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555; telephone: 301-415-1985 or e-mail: **Aaron.Szabo@nrc.gov**.

SUPPLEMENTARY INFORMATION:

III. Changes to SAFSTOR and ENTOMB Decommissioning Options

IV. Public Comments on the Petition

V. Reason for Denial

I. Background

On December 23, 2009, the NRC received a petition for rulemaking filed by Mr. Sherwood Martinelli (ADAMS Accession No. ML093620175). The petitioner requests that the NRC amend its regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," to require yearly reporting by licensees on the status of the financial mechanisms used to ensure funding for the decommissioning of nuclear power plants, and biannual reporting if the license is within 5 years of expiration. The petitioner further requests that the NRC require additional deposits to the funding accounts within 90 days from the time a shortage is noted in the annual reports. The petitioner requests that the regulations be revised to require that licensees create a financial mechanism, such as a trust fund with a host State, controlled and managed by that State, to ensure that there is sufficient funding to pay for the ultimate decommissioning of the facility. The petitioner also requests that the NRC amend its regulations to clarify that a licensee's choice of alternative decommissioning strategy must result in the return of the site to unrestricted use within 60 years, and that the NRC eliminate the ENTOMB strategy as an option. On February 26, 2010 (75 FR 8843), the NRC published a *Federal Register* Notice (FRN) announcing the receipt and docketing of the petition for rulemaking as PRM-50-94 and requesting public comment from interested parties. The comment period closed on May 12, 2010.

The petitioner also makes two claims in PRM-50-94 that are not being addressed in the PRM process under 10 CFR 2.802, "Petition for rulemaking:" 1) Entergy Nuclear Operations, Inc.

(Entergy) is violating NRC rules and regulations by allowing Indian Point Nuclear Generating Unit No. 1 (IP1) to remain in SAFSTOR, is wrongfully and illegally depending on parts of IP1 to help run Indian Point Nuclear Generating Units No. 2 and 3 (IP2 and IP3), and is using the reactor of IP1 as an illegal storage/dumping ground for radiological waste streams from the continued operations of IP2 and IP3; and 2) the NRC has negligently allowed certain licensees to violate the current regulations on funding and the filing of reports.

The petitioner's first claim contains general assertions of violations but does not ask for enforcement-related action; therefore the NRC did not consider this under the 10 CFR 2.206 process. Further, the petitioner's claim was not considered within the allegation process because NRC regulations do not disallow a unit from remaining in SAFSTOR and IP2 and IP3 are allowed to utilize structures, systems and components of IP1 in accordance with their 10 CFR Part 50 licenses. The NRC's recognition of this situation is evidenced by the Staff's statement in NUREG-1437, Supplement 38, "General Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3," (ADAMS Accession No. ML103350405) that "radioactive waste storage and process facilities located in IP1 provide additional waste processing services for IP2." The NRC has no regulations forbidding the storage of radioactive waste at a 10 CFR Part 50 licensee's facility, although these licensees must obtain NRC approval for onsite storage of radioactive waste. The NRC's regulations at 10 CFR Part 20, "Standards for Protection against Radiation," state the general requirements for ensuring that radioactive waste is stored safely and securely. Also, the NRC routinely inspects licensees to ensure radioactive waste is maintained safely and securely under the Reactor Oversight Process. To address the petitioner's second claim, this petition has been forwarded to the NRC's Office of the Inspector General for a determination of whether the claim qualifies as an allegation of wrongdoing.

II. Avoiding Legacy Sites

a. Revise Reporting Requirements

The petitioner requests that the NRC amend its requirements pertaining to the frequency of reporting the status of decommissioning funding from once every 2 years to once every year, and from annual to biannual reporting if the license is within 5 years of expiration. Although no specific NRC requirement is cited, the Commission believes that the petitioner is referring to 10 CFR 50.75(f)(1), which requires each power reactor licensee to report to the NRC, on a calendar year basis, at least once every 2 years, on the status of its decommissioning funding for each reactor or part of a reactor that it owns.

The petitioner's basis and rationale for requesting these amendments is the belief that with the current state of the economy, a 2-year reporting requirement is not adequate to ensure the safety and adequacy of funds set aside for the decommissioning of a nuclear power plant. The petitioner also believes that without this additional assurance, host communities and taxpayers would be left with legacy sites,[1] for which communities and taxpayers would be responsible for funding the decommissioning activities.

b. Restrict Funding Mechanisms and Increase Financial Assurance

The petitioner requests that the financial assurance section of the NRC's decommissioning funding requirements be replaced to require that, before nuclear power plant operations commence, licensees deposit or create a financial mechanism (such as a trust fund) with the host State to be controlled and managed by that State to ensure that there will be sufficient funding for the ultimate decommissioning of the facility. Also, the NRC should require

[1] A legacy site is a facility that is in decommissioning status with complex issues and an owner who cannot complete the decommissioning work for technical or financial reasons. (73 FR 3812, 3813; January22, 2008)

that licensees make additional deposits into the fund within 90 days of the identification of any shortfalls in funding. The petitioner believes that these measures would provide the public reasonable assurance that sufficient funds for cleanup will be available at the time of decommissioning. The petitioner does not provide a specific citation for the regulatory text to be revised; however, decommissioning trust fund options are included in 10 CFR 50.75(e)(1).

III. Changes to SAFSTOR and ENTOMB Decommissioning Options

The petitioner further requests that the "rules" governing alternative decommissioning strategies be modified. The first option for decommissioning is ENTOMB, which involves removing all fuel and radioactive fluids and wastes and possibly removing selected nuclear components. The remaining radioactive components are sealed into the containment structure. The second option is DECON, which involves the removal of radioactive components, total dismantlement of the facility, and decontamination of remaining structures to a level that permits release for unrestricted use and termination of the license. The last type is SAFSTOR, which is often considered "delayed DECON," and involves initially removing all fuel and radioactive wastes and liquids, maintaining the facility in a condition that allows the decay of radioactivity to reduce radiation levels at the facility, and then decontaminating and dismantling the facility. The alternative decommissioning options, DECON, SAFSTOR, and ENTOMB, are not defined in NRC regulations but are described in a number of NRC documents. For example, NUREG-1713, "Standard Review Plan for Decommissioning Cost Estimates for Nuclear Power Plants," (ADAMS Accession No. ML043510113) contains a description of the options, as does the NRC Fact Sheet, Decommissioning Nuclear Power Plants. Therefore, the NRC is treating this portion of the petition for rulemaking as a request to codify the options in 10 CFR 50.75, "Reporting and Recordkeeping for Decommissioning Planning," as modified by the petitioner.

The petitioner believes that the SAFSTOR decommissioning option allows licensees to turn the reactor sites into long-term high-level waste storage facilities. The petitioner cites the NRC Fact Sheet, Decommissioning Nuclear Power Plants (although the petitioner refers to it as "the current rule"), which states that a decision by a licensee to adopt a combination of DECON and SAFSTOR may be based on factors such as the availability of waste disposal sites. The petitioner believes that this wording creates a loophole whereby a site choosing the SAFSTOR option would not be returned to unrestricted use within a period of 60 years from the time reactor operation ceases. The petitioner requests that the NRC amend its regulations to clarify that a licensee's choice of alternative decommissioning strategy must result in the return of the site to unrestricted use within 60 years and that the NRC eliminate the ENTOMB strategy as an option.

IV. Public Comments on the Petition

The NRC received one set of comments on PRM-50-94 from the Nuclear Energy Institute (NEI or the commenter), dated May 12, 2010 (ADAMS Accession No. ML101340042). The NEI's comments and the NRC responses are provided in this section.

Comment 1: **Frequency of Reporting Decommissioning Funding Status**

The NEI stated that requiring more frequent reporting on the status of decommissioning funds will not necessarily yield useful or actionable information when dealing with long-term investments, such as nuclear power plant decommissioning trust funds. The basis of the comment was that more frequent reporting during financially turbulent times will necessarily produce information reflecting short-term market fluctuations. The NEI stated that precipitous modifications to long-term investment strategies could result in tax consequences, negatively affect corporate credit ratings, and divert capital from the operation of existing plants. The NEI

described how NRC regulations require more detailed cost estimates as a licensee approaches the cessation of operations and license termination. The NEI stated that NRC regulations allow the NRC to request information to confirm a licensee's compliance with financial assurance requirements. The NEI stated that it disagreed with the suggested revision because the petitioner did not provide an adequate basis for increasing the frequency of the decommissioning fund status reports required by 10 CFR 50.75(f)(1) and (2).

NRC Response

The NRC uses the information contained in licensee's periodic financial reports to conduct a compliance check and to assess the ability of the licensee to continue to provide financial assurance in the future. Depending on the result of the NRC's assessment, the information may indeed be actionable and may indicate that additional oversight is appropriate for a particular licensee. For example, during the financially turbulent times of 2009, the NRC increased the frequency of reporting on decommissioning funding, and the information obtained was used as the basis for taking action at numerous reactor facilities that reported shortfalls in financial assurance.

The commenter's statement regarding the potential adverse effects of making precipitous changes in the investment strategy is a separate issue from the frequency of submitting a decommissioning fund status report. Similarly, the commenter's description of the decommissioning cost estimates required as a power reactor approaches the cessation of operations and license termination are issues separate from the frequency of the fund status report.

The NRC staff finds analysis of the market impacts on available funding to be useful and actionable. The commenter's statement, that the NRC can require more frequent reporting under its existing rules, is correct. Section V, Reason for Denial, of this document provides

additional discussion of how the NRC can, and in many cases does require, more frequent reporting under its existing rules.

Comment 2: **Require Trust Fund Management by the Host State**

The NEI stated that requiring the licensee's host State to manage the decommissioning trust funds and to periodically report on the status of such funds may not be constitutional. The NEI stated that management of funds by a State government does not immunize the funds from the effects of fluctuating market conditions, as demonstrated by the challenges associated with management of State pension funds. The NEI stated that the formation of subsidiaries and the buying and selling of property are legitimate means of doing business which do not clearly require an amendment to the NRC's regulations. The NEI stated that decommissioning funding, and continued compliance with the Commission's funding requirements, is already considered in the context of Commission reviews of license amendment requests related to changes in ownership and corporate structure.

NRC Response

The NRC does not need to reach the issue of constitutionality with respect to its authority to require a State government to manage a licensee's decommissioning trust funds. The NRC has no authority under the Atomic Energy Act of 1954, as amended, to require a State to act as a trustee.

Comment 3: **Require Deposits into Trust Fund Within 90 Days of a Shortfall**

The NEI stated that requiring that all funding shortfalls be corrected within 90 days of discovery, if enacted, could have two adverse effects on a licensee. First, the NEI states that

depositing funds into a trust account within 90 days of reporting a shortfall would force a utility to pay an unnecessary premium for decommissioning funds that might not be used for decades. Second, the premium would likely have an immediate impact on the company's financial health and operations. The NEI stated that the NRC's Chairman expressed confidence in the NRC's overall approach to decommissioning funding in view of the fact that most licensees maintained adequate funds during the economic downturn in 2008 and 2009. The NEI stated that over 70 percent of operating reactor units did not experience shortfalls in decommissioning funding in 2008. The NEI stated that the NRC should maintain the flexibility to work with a licensee in a reasonably expeditious manner, informed by the amount of the shortfall, current market conditions, and the date the funds will likely be needed.

NRC Response

The provisions of 10 CFR 50.75(e) allow several methods for a licensee to provide financial assurance in addition to making deposits into a trust fund. The NRC determined that each of the methods provides adequate financial assurance. The NRC agrees that the flexibility provided by its existing rules would be reduced if all funding shortfalls were required to be corrected by making deposits into the decommissioning trust fund within 90 days. The NRC also agrees that the agency's current requirements for the timeline to address funding shortfalls has continued to provide assurance of adequate funding.

Comment 4: **Alternative Decommissioning Strategies**

The commenter stated that, to the extent that the petition implicates enforcement action, the appropriate response should be through the request for enforcement process of 10 CFR 2.206, rather than the petition for rulemaking process of 10 CFR 2.802.

The commenter provided several reasons for its conclusion that the NRC should not amend its regulations or guidance to limit the SAFSTOR option or eliminate the ENTOMB option for decommissioning power reactors. The commenter stated that the information presented in the petition regarding SAFSTOR and ENTOMB does not appear in the NRC's regulations. Rather, it is found in an NRC fact sheet dated January 2008, and in several NRC guidance documents. The commenter concluded that the petition appears to request modification of the fact sheet and possibly the guidance documents, rather than the NRC's regulations. The commenter stated that the NRC's radiological criteria for license termination, Subpart E to 10 CFR Part 20, were developed through a notice-and-comment rulemaking process. The rules of Subpart E permit license termination under restricted conditions. The commenter emphasized two provisions of 10 CFR 50.82(a)(3) that should be considered in developing a response to the petitioner's request: 1) the regulation permits the extension of the decommissioning period beyond 60 years only when necessary to protect public health and safety, and 2) the Commission will consider the unavailability of waste disposal capacity in its evaluation of the licensee's ability to carry out decommissioning. The commenter disagreed that the existing regulations jeopardize public health and safety. The commenter stated that the NRC does not have the authority to require the U.S. Department of Energy (DOE) or the U.S. Department of Defense (DOD) to store used nuclear fuel or other high-level radioactive wastes at sites under the jurisdiction of those agencies.

NRC Response

The NRC agrees with the commenter that requests for enforcement should not be addressed using the petition for rulemaking process.

In the context of a petition for rulemaking, the NRC concluded that the petitioner requests

a change in the regulations to limit the use of SAFSTOR and eliminate the use of ENTOMB. The NRC agrees that its existing regulations and guidance allow for license termination under restricted use conditions; allow decommissioning time periods beyond 60 years when necessary to protect public health and safety; consider the availability of waste disposal capacity on a licensee's ability to carry out decommissioning; and do not jeopardize public health and safety. The bases for these determinations are described in a number of NRC rulemaking FRNs, for example, in its 1988 rulemaking (53 FR 24018; June 27, 1988). The NRC agrees that it does not have the authority to require the DOE or the DOD to store spent nuclear fuel or high-level waste at sites under the jurisdiction of those agencies, on grounds that Congress has not delegated such authority to the NRC.

V. Reason for Denial

The NRC has determined that the petitioner has not provided an adequate basis upon which the NRC could act to amend its regulations as requested by the petitioner.

With respect to the petitioner's request for annual instead of biennial reporting of the decommissioning trust fund status, the Commission published a final rule in September 1998, "Financial Assurance Requirements for Decommissioning Nuclear Power Reactors" (63 FR 50465; September 22, 1998). In its 1998 rulemaking, the NRC established the 2-year frequency for the decommissioning fund status report after considering a range of frequencies from 1 to 5 years. The 2-year frequency was based on the following:

> Given NRC's information needs, and the multi-million-dollar size of the contributions that utilities make annually to their decommissioning funds, the potential pay-off per hour of staff labor that NRC invests in monitoring funds is likely to be significant (63 FR 50465, 50476).

Since the issuance of the 1998 rule, the 2-year reporting frequency has continued to be

adequate for routine monitoring of the status of decommissioning financial assurance. In cases where a licensee reports a shortfall, the NRC can exercise increased oversight to monitor the licensee's progress in resolving the shortfall under the provisions of 10 CFR 50.75(e)(2). The oversight may require fund status information more frequently than annually, and the NRC adjusts its monitoring accordingly. For example, due to the market decline in 2008, the NRC issued numerous requests for additional information to monitor reactor facilities with shortfalls. The 1998 rule also addressed the request to increase the frequency of reporting from 1 year to every six months for reactors within 5 years of the expected end of operations. The 1-year frequency for reactors nearing the end of operations was endorsed by a majority of the commenter's on the 1998 rule. However, as with the 2-year reports, the NRC can increase the frequency of monitoring as needed to assure that the reactor facility has adequate financial assurance. The NRC's ability to adjust the frequency of monitoring enables the agency to obtain adequate information for cases where the licensee has a shortfall, but avoids imposing an unnecessary reporting burden on licensees that meet the funding assurance requirements. The NRC denies the petition to increase the reporting frequency for all reactors in response to the fact that some reactors have reported shortfalls because the existing regulatory framework already provides the NRC adequate flexibility to address oversight and reporting frequency for facilities with shortfalls.

The petitioner requests the NRC amend its rules to require the host State of a reactor facility to control, manage, and report the status of the licensee's decommissioning trust fund. However, the NRC does not have authority to require a State to become a trustee nor does the NRC view it as appropriate to impose trustee status on a non-licensee. In addition, the NRC's regulations at 10 CFR 50.75(e) do not preclude such an arrangement. The NRC denies the request to require the host State to become a trustee of licensee's decommissioning funds.

With respect to the request that the decommissioning funds should not be held by the

licensee, the NRC agrees with the petitioner. However, current NRC regulations already specify that the licensee cannot hold decommissioning trust funds. The provisions in § 50.75(e)(1)(i) and (ii) for the prepayment and the external sinking fund methods require the funds to be held in an account segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries or affiliates. Therefore, no amendment is necessary to achieve the goal of prohibiting the licensee from holding the funds itself.

The petitioner requests the NRC to amend its regulations to require a licensee to deposit funds into the licensee's decommissioning trust fund within 90 days of reporting a shortfall as the exclusive remedy for a shortfall. The petitioner states the amendment is needed to provide reasonable assurance that funds will be available when needed and to avoid legacy sites that must be cleaned up at taxpayer expense. In its Staff Requirements Memorandum on SECY-10-0084, "Explanation of Changes to Revision 2 to Regulatory Guide 1.159, 'Assuring the Availability of Funds for Decommissioning Nuclear Reactors'", dated October 25, 2010 (ADAMS Accession No. ML102980565), the Commission disapproved a proposed change that would have directed merchant licensees to adjust decommissioning funds annually and within 3 months of the annual recalculation of the regulatory minimum required by 10 CFR 50.75(b). The Commission stated that the guidance should retain the current directive that merchant licensees adjust their funding amounts at least once every two years, in conjunction with the biennial report, and interpreted that to mean that shortfalls reported in a biennial report must be corrected by the time the next biennial report is due two years later. The Commission also approved affording rate-regulated licensees 5 years to adjust the funding amounts.

Furthermore, the NRC has determined that several methods of providing financial assurance exist that can afford an adequate level of assurance that funds for decommissioning will be available when needed. The reason for providing several methods was to provide

flexibility to permit licensees to select the method best suited to their needs. Specifically, the NRC has concluded that eliminating the flexibility of using all the currently existing methods of financial assurance would impose a burden on licensees without providing an increase in safety.

Based on the previously provided rationale, the NRC denies the request.

The petitioner requests that the NRC amend its regulations to require the SAFSTOR option to be limited such that decommissioning is completed within 60 years. The basis of the request is that the NRC promised the host community that the site would be decommissioned and returned to unrestricted use within 60 years and to avoid legacy sites with high level waste disposal and long-term storage facilities. However, the 60-year period was never intended to be an absolute limit, and the rule language has never stated it as an absolute limit. When the NRC issued its final rule, "General Requirements for Decommissioning Nuclear Facilities" (53 FR 24018; June 27, 1988), the NRC stated:

> The rule does not contain a specific limitation on the length of time for SAFSTOR beyond the time period indicated in the modified rule. The case-by-case considerations, such as shortage of radioactive waste disposal space offsite or presence of an adjacent reactor whose safety might be affected by dismantlement procedures, or other similar site specific considerations, mean that the appropriate delay for a specific facility must be based on factors unique to that facility and could result in extension of completion of decommissioning beyond 60 years. Based on this, the NRC considers the setting of an absolute time limit on SAFSTOR to be impractical and unnecessary. … [T]he rule contains requirements that a licensee must submit an alternative for decommissioning to the NRC for approval and that consideration will be given to an alternative which provides for completion of decommissioning beyond 60 years only when necessary to protect health and safety. (53 FR 24018, 24023).

In view of the NRC's conclusion that the setting of an absolute time limit on SAFSTOR would be impractical and unnecessary, the NRC disagrees that a formal commitment was made that a reactor facility would be required to complete decommissioning within 60 years. The NRC denies the request to impose an absolute 60-year time limit for decommissioning.

The petitioner requests the NRC to amend its regulations to require that the SAFSTOR option may be used only if the license will be terminated based on meeting unrestricted use criteria. The bases of the request are the petitioner's beliefs that the NRC promised the host community that a site would be decommissioned and returned to unrestricted use within 60 years and to avoid legacy sites with high-level waste disposal and long-term storage facilities. When the 1988 Decommissioning Rule was issued, the definition of decommissioning was to remove (as a facility) safely from service and reduce residual radioactivity to a level that permits release of the property for unrestricted use and termination of the license. (53 FR 24049; June 27, 1988). However, in July 1997 the NRC amended the definition of decommissioning to allow license termination under restricted conditions. (62 FR 39058; July 21, 1997). The NRC explained its reasoning with this statement:

> Restricted use has been retained in the final rule. Based on its analyses in the Final GEIS and its experiences with actual decommissioned sites, the Commission recognizes that, although unrestricted use is generally preferred, restricted use (when properly designed in accordance with the rule's provisions discussed in Section IV.B.3) can provide a cost-effective alternative to unrestricted use for some facilities and maintain the dose to the average member of the pertinent critical group at the same level. Thus, the Commission has replaced the prohibitively expensive provision for justifying restricted use with a reasonable cost provision. (62 FR 39058, 39072).

The amended definition of decommissioning in 10 CFR 50.2 was subject to a notice-and-comment rulemaking, and the Commission considered stakeholder comments before issuing the final rule. The petitioner did not raise any new issues that would cause the NRC to reconsider the conclusions reached in the 1997 rulemaking process. On that basis, the NRC denies the request to re-impose a requirement for a reactor facility to decontaminate its facility to meet unrestricted use criteria in all cases.

The petitioner requests the NRC to amend its regulations to prohibit a licensee from using

a SAFSTOR facility for any activities related to other reactors onsite. Similar to the petitioner's other requests, the bases for this request are the petitioner's beliefs that the NRC promised the host community that a site would be decommissioned and returned to unrestricted use within 60 years to avoid legacy sites with high-level waste disposal and long-term storage facilities. The Commission notes that it is possible that the completion of decommissioning a facility in SAFSTOR could be delayed past the 60-year mark if the facility is used for activities related to an operating unit on the site. The need to use equipment shared by a shutdown unit and an operating unit could prevent completing the decommissioning of the shutdown unit until the operating unit was permanently shut down. However, the discussion of SAFSTOR in the Statement of Considerations demonstrated that the NRC's regulations allow the licensee to exceed the 60-year limit in cases where a shutdown unit is located on the same site as an operating unit, subject to NRC approval. In a case where the SAFSTOR facility shares equipment with an operating unit, the NRC would consider the risk of conducting decommissioning activities near an operating unit. That type of evaluation would necessarily depend on site-specific factors that are not well suited to codification in a rule.

The Commission shares the petitioner's concerns regarding legacy sites. To prevent the occurrence of legacy sites at reactor facilities, 10 CFR 50.75(f)(3) requires the licensee to submit a preliminary decommissioning cost estimate that includes an up-to-date assessment of the major factors that could affect the cost of decommissioning. The provisions of 10 CFR 50.54(bb) require the licensee to provide a plan for the management of spent fuel. In addition, the Commission recently issued a rule which requires licensees to minimize contamination; requires that licensees survey outside for radiological hazards, including the subsurface soil and groundwater; and revises the financial assurance regulations (76 FR 35512; June 17, 2011). These requirements work together before the end of operations to assure that the licensee has

the financial ability to safely decommission the site and to manage the spent fuel. These requirements assure that a facility will not become a legacy site, even if a facility in SAFSTOR continues to share equipment with an operating unit onsite. The NRC denies the request to forbid the use of a facility in SAFSTOR for any activities related to another unit onsite.

The petitioner requests the NRC to forbid the licensee from placing additional waste streams on the SAFSTOR site that belong to other licensees, even if one company owns multiple licenses for multiple reactors on a singular piece of land. As noted, the 60-year timeline for decommissioning is not an absolute limit, and, considered alone, would not provide the basis for forbidding placement of waste streams from other onsite reactors in the SAFSTOR facility. Also, as noted, the legacy site issue depends on whether the licensee has the financial resources to complete decommissioning. The NRC addresses this issue through its financial assurance requirements. A licensee is required in 10 CFR 50.75 to provide assurance that at any time during the life of the facility, through termination of the license, adequate funds will be available to complete decommissioning. (61 FR 39278; July 29, 1996). As noted in the Statement of Considerations, when a licensee has a shortfall in financial assurance, the NRC increases its oversight activities until the matter is resolved. The NRC's regulations in 10 CFR Part 20, "Standards for Protection Against Radiation," provide general requirements for ensuring that radioactive waste is stored safely. With respect to high level waste and spent fuel, the Commission recently updated its Waste Confidence Decision with the following statement: "The Commission finds reasonable assurance that sufficient mined geologic repository capacity will be available to dispose of the commercial high-level radioactive waste and spent fuel generated in any reactor when necessary." (75 FR 81037, 81067; December 23, 2010). The requirements of 10 CFR 50.54(bb) require the licensee to provide a plan for managing spent fuel until it is transferred to the Secretary of Energy for final disposal. The Waste Confidence Decision combined with the ongoing requirement to provide adequate financial assurance for

decommissioning, and to maintain a spent fuel management plan, indicate that a facility in SAFSTOR will not become a legacy site in the event some waste from another reactor on the site is placed in the SAFSTOR facility. The NRC denies this request.

The petitioner requests the NRC to amend its regulations to eliminate the use of ENTOMB as a decommissioning option. However, in its 1988 Decommissioning Rule, the NRC provided the following explanation for retaining the ENTOMB option for decommissioning:

> It is the Commission's belief that the ENTOMB alternative for decommissioning should not be specifically precluded in the rule because there may be instances in which it would be an allowable alternative in protecting public health and safety and common defense and security. By not prohibiting ENTOMB, the rule is more flexible in enabling NRC to deal with these instances. These instances might include smaller reactor facilities, reactors which do not run to the end of their lifetimes, or other situations where long-lived isotopes do not build up to significant levels or where there are other site specific factors affecting the safe decommissioning of the facility, as for example, presence of other nuclear facilities at the site for extended periods. In addition there is potential for variations on the ENTOMB option where, for example, some decontamination has already been performed, thereby making the ENTOMB option more viable. … [C]oncerns were expressed by the commenter's that the ENTOMB option would cause environmental damage due to the presence of long-lived radionuclides which would be radioactive beyond the life of any concrete structure, that it is inconsistent with the definition of decommissioning requiring unrestricted release, and that some reactors are located in highly populous areas. In addition, the Supplementary Information to the proposed rule indicated, in general, that there may be difficulties with the use of ENTOMB, in particular in demonstrating that the radioactivity in the entombed structure had decayed to levels permitting unrestricted release of the property in a period on the order of 100 years. In response, the rule contains requirements that a licensee must submit an alternative for decommissioning to the NRC for approval and that consideration will be given to an alternative which provides for completion of decommissioning beyond 60 years only when necessary to protect health and safety. This provides the Commission with both sufficient leverage and flexibility to ensure that if the ENTOMB option is chosen by the licensee it will only be used in situations where it is reasonable and consistent with the definition of decommissioning which requires that decommissioning lead to unrestricted release. As indicated above, analysis of ENTOMB indicates that it can be carried out safely and with minimal environmental effect for the time periods presented in this Supplementary Information and in the guidance under preparation. However, based on the difficulties with ENTOMB described in the

> Supplementary Information to the proposed rule and by the commenter's, use of ENTOMB by a licensee would be carefully evaluated by NRC according to the requirements of the rule before its use is permitted. (53 FR 24018, 24023-24; June 27, 1988).

The decision to retain the ENTOMB option was subject to a notice-and-comment rulemaking. The petitioner has not raised any new or significant points that would cause the Commission to reconsider the conclusions reached in the 1988 rulemaking. On the bases noted, the NRC denies the request to eliminate the use of ENTOMB as an option for decommissioning a nuclear facility.

For these reasons, the NRC denies the petitioner's requests for the NRC to modify its requirements for reporting the status of licensee's decommissioning trust funds, to have host States manage these trust funds, to require a deposit into the trust fund within 90 days as the exclusive remedy for a shortfall, to amend the definition of the SAFSTOR decommissioning option in its regulations, and to eliminate the ENTOMB option.

Dated at Rockville, Maryland, this 1st day of December, 2011.

For the Nuclear Regulatory Commission.

/RA/

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