

April 25, 1996

FOR: The Commissioners
 FROM: James M. Taylor /s/
 Executive Director for Operations
 SUBJECT: FINAL RULEMAKING - REVISION TO 10 CFR PARTS 2, 50, AND 51, RELATED TO DECOMMISSIONING OF NUCLEAR POWER REACTORS

- PURPOSE:
- BACKGROUND:
- DISCUSSION:
- RESOURCES:
- COORDINATION:
- RECOMMENDATION:

PURPOSE:

To request Commission approval to publish a notice of final rulemaking amending the decommissioning regulations in [10 CFR Parts 2, 50, and 51](#).

BACKGROUND:

On May 23, 1995, the Commission directed the staff to publish a proposed rule amending certain procedural requirements related to decommissioning of nuclear power reactors. A proposed rule was published in the *Federal Register* on July 20, 1995 (60 FR 37374), intended to modify the framework for a power reactor licensee to decommission its facility.

The proposed rule specified that a licensee would no longer be required to submit a decommissioning plan for approval prior to undertaking any decommissioning activity. Under the proposed rule, a licensee would be able to begin decommissioning after certain actions occur. First, the licensee would need to make two certifications to the NRC; 1) that the reactor was permanently shutdown and 2) that all spent fuel was removed from the reactor. After these certifications were submitted to the NRC, the licensee would no longer be permitted to operate the facility, and a number of Part 50 technical requirement modifications would become effective to reflect the changed status of a reactor facility undergoing decommissioning. Next, the proposed rule specified that the licensee would need to submit a post-shutdown decommissioning activities (PSDAR) report to the NRC that described the activities it planned to undertake, along with a schedule for these activities, an estimate of the expected costs, and a discussion of whether the environmental impacts of the proposed actions are bounded by existing environmental impact statements. In addition, a mandatory hold of 90 days was included in the proposed rule, to allow time for the staff to review the licensee's submittal and to hold a public information meeting in the vicinity of the site.

Licensees would only be permitted to undertake activities meeting the requirements of § 50.59. Additional criteria for using § 50.59 during decommissioning were included in the proposed rule. These criteria prohibited activities that would foreclose release of the site for unrestricted use, cause any significant environmental impact not previously reviewed, violate terms of the existing license, or significantly increase decommissioning costs.

The proposed rule also specified that an application for license termination must be accompanied or preceded by a license termination plan for NRC approval. The process outlined in the proposed rule for the license termination plan was similar to the process occurring under the existing rule when a decommissioning plan is submitted, except that another public meeting would be scheduled near the site and any hearings held in relation to this plan would fall under Subpart L of Part 2 because, with fuel removed from the site, the reactor licensee would be more like a materials licensee where a less formal hearing process is involved.

The proposed rule would have provided that the provisions in § 50.82 applied to all power reactor licensees that did not have an approved decommissioning plan on the effective date of the final rule. The proposed rule also provided that power reactor licensees with an approved plan could elect to be governed by the final rule, rather than the regulations in effect at the time their decommissioning plans were approved.

DISCUSSION:

Thirty-four comment letters were received on the proposed rule. The draft *Federal Register* notice for the final rule groups the comments into two groups, for and against. In general, those in favor of the proposed rule (24) included industry groups and those opposed to the proposed rule (10) included public interest groups. A number of commenters made suggestions for modifications to the proposed rule. For example, a number of those in favor of the proposed rule suggested that the NRC go further in deleting requirements for licensees entering decommissioning, while a number of those opposed to the proposed rule suggested maintaining the status quo.

In resolving public comments on the use of § 50.59 to undertake certain activities, the staff determined that the existing criteria in § 50.59 were sufficient and that the additional § 50.59(e) criteria proposed would be redundant with other requirements already imposed by the current regulations or better addressed elsewhere as overall constraints on the licensee's major decommissioning activities (defined in § 50.2), rather than separately for each contemplated § 50.59 activity.

The first criterion in the proposed § 50.59(e) was that decommissioning activities not foreclose release of the site for possible unrestricted use. The final rule has a provision in § 50.82(a)(6) that includes this constraint.

The second criterion in the proposed § 50.59(e) was that decommissioning activities not significantly increase decommissioning costs. This constraint was adequately addressed under paragraph (7) to the proposed § 50.82 (a). Paragraph (7) was included in the proposed rule to incorporate criteria from the NRC Draft Policy Statement on the use of decommissioning trust funds before decommissioning plan approval (59 FR 5216). Paragraph (8) of the final rule specifies that decommissioning trust funds may be used for legitimate decommissioning activities meeting the definition of decommissioning in § 50.2, if expenditures would not reduce the value of the decommissioning trust below an amount necessary to maintain the reactor in a safe storage condition if unforeseen circumstances arise, and any withdrawals would not inhibit the ability of the licensee to ultimately release the site and terminate the license. The PSDAR must also include an estimate of the licensee's expected decommissioning costs. Section 50.82(a)(6) has been modified in the final rule to require a subsequent written notification of any significant changes that increase

the decommissioning costs and § 50.82(a)(6)(iii) prohibits any decommissioning activities that result in there no longer being reasonable assurance that adequate funds will be available for decommissioning.

The third criterion in the proposed § 50.59(e) was that decommissioning activities not cause any significant environmental impact not previously reviewed. The final rule has a provision in § 50.82(a)(6) that includes this constraint. In addition, the final rule will require the licensee to include in the PSDAR a discussion of the reasons for the conclusion that the environmental impacts of site decommissioning activities will be bounded by the appropriate environmental impact statement. This will ensure that the licensee demonstrates that the environmental impacts due to decommissioning have been adequately considered.

The fourth criterion in the proposed § 50.59(e) was that decommissioning activities not violate the terms of the existing license. This is redundant, and has been removed, because all licensees are required to comply with the terms of the existing license.

Another change from the proposed rule addresses a comment from an Agreement State. This commenter expressed concern that under NRC's proposed rule a State would no longer be provided an opportunity to comment on a licensee's decommissioning plan, as exists with the current rule. The staff agrees that the States should continue to have an opportunity to review and comment on a licensee's planned decommissioning activities. The final rule will require that the licensee send the affected State(s) a copy of the PSDAR and written notification when departing from it, as noted in §§ 50.82(a)(4)(i) and (7).

The last significant change from the proposed rule addresses the issue of "grandfathering" sites already in the process of decommissioning. The final rule (in the introductory paragraph to § 50.82) provides that for licensees who have either submitted a decommissioning plan for approval or possess an approved decommissioning plan, the decommissioning plan will be considered as the PSDAR submittal, and the licensees will be permitted to perform decommissioning activities in accordance with the provisions in § 50.82. All licensees will be required to have an approved license termination plan. However, for licensees who have an approved decommissioning plan, the termination plan will only need to address those activities not already approved in the decommissioning plan. Finally, for licensees involved in Subpart G proceedings under 10 CFR Part 2, the provisions of the final rule will not apply and the licensees will be required to abide by any orders arising from the proceedings.

RESOURCES:

The current budget contains resources to conduct the decommissioning process in accordance with the existing rule. No additional resources will be required to implement the provisions of the final rule.

COORDINATION:


The Office of the General Counsel has no legal objection to this paper.

RECOMMENDATION:

That the Commission:

1. Approve publication of the final rule.
2. Certify that the final rule will not have a negative economic impact on a substantial number of small entities, in order to satisfy requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b).
3. Approve the recommendation to amend the Criminal Enforcement requirements in [10 CFR 50.111](#).

Note:

- a. The final rule ([Attachment 1](#) ) will be published in the *Federal Register*;
- b. A Regulatory Analysis has been prepared and will be made available in the Public Document Room ([Attachment 2](#));
- c. An environmental assessment and finding of no significant impact has been prepared and will be made available in the Public Document Room ([Attachment 3](#));
- d. That, in accordance with the Regulatory Flexibility Act, a regulatory flexibility analysis has been prepared. The analysis is not a separate document but part of the *Federal Register* notice. The analysis indicates that the economic impact on licensees and small entities will not be significant. The analysis will be made available in the Public Document Room and a copy will be sent to the Chief Counsel for Advocacy of the Small Business Administration.
- e. The final rule contains new information collection requirements and, therefore, is subject to the requirements of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). The staff is preparing a *Federal Register* notice for OMB submittal before publication of the final rule;
- f. A public announcement will be issued ([Attachment 4](#));
- g. The appropriate Congressional committees will be informed ([Attachment 5](#)); and
- h. Copies of the *Federal Register* notice of final rulemaking will be distributed to all licensees. The notice will be sent to other interested parties upon request.

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Attachments: As stated (5)

Amendments to 10 CFR Parts 2, 50, and 51 Decommissioning of Nuclear Power Reactors

- 1. Statement of Problem.
- 2. Objectives.
- 3. Alternatives.
 - 3.1 Alternative - Take No Action.
 - 3.2 Alternative - Regulatory Guidance.
 - 3.3 Alternative - Rulemaking.
- 4. Regulatory Impact - Qualitative Costs and Benefits.
- 5. Decision Rationale.
- 6. Implementation.
 - 6.1 Schedule.

1. Statement of Problem.

When the decommissioning regulations were published on June 27, 1988 (53 FR 24018), and adopted, it was assumed that the majority of nuclear power reactor licensees would decommission at the end of the operating license. Since that time, a number of licensees have shut down prematurely without having submitted a decommissioning plan. In addition, these licensees have requested exemptions from operating requirements to address their status of no longer having fuel present in the reactor. Each of these cases has been handled individually without clearly defined generic requirements.

The Commission is amending the decommissioning regulations in 10 CFR Parts 2, 50, and 51 to clarify ambiguities in the current regulations, and to codify procedures and terminology that have been used on a case-by-case basis. The Commission believes that the final amendments would enhance efficiency and uniformity in the regulatory process of decommissioning nuclear power plants. The final amendments would permit the public to more fully participate in the decommissioning process and furnish the licensed community and the public a better understanding of the process as the operating personnel at a nuclear power plant facility undergo the transition from an operating organization to a decommissioning organization. In particular, this rulemaking would address the process which begins with a licensee's decision to permanently cease operations at the facility and concludes with Commission's approval of the termination of the license. Finally, it should be noted that some final amendments have been made for non-power reactors for the purposes of clarity and procedural simplification.

2. Objectives.

The conceptual approach that the Commission has chosen, divides the decommissioning activities into phases I, II, and III. Phase I deals with those licensing activities that the licensee undertakes prior to placing the power reactor in a storage mode. Phase II deals with licensee activities during the storage period, and Phase III deals with the activities the licensee undertakes to terminate the license. The implementation aspects of this approach comprise the following objectives (the requirements of which are mainly in § 50.82(a)):

1. At the initiation of Phase I, certification would be provided to the NRC that the licensee has permanently ceased operation. Also, during Phase I, certification would be provided to the NRC that the licensee has permanently removed all fuel from the reactor vessel. These certifications are defined in § 50.2, specificity presented in § 50.4(b)(8) and (9), and required in § 50.82(a)(1). At this time, the licensee, through rule codification, would no longer be permitted to operate the reactor.
2. The licensee would no longer be required to comply with all of the 10 CFR Part 50 requirements. Those that are unnecessary would be eliminated and others that require modification would be changed, through codification, in recognition of the licensee's permanent shutdown status. The other requirements of Part 50 would continue to apply to permanently shutdown facilities.
3. No major decommissioning activities, as defined in § 50.2, would be allowed initially, although limited licensee decommissioning trust funds would be made available for planning purposes and early preparatory activities. The remaining decommissioning funds would be made available with receipt of the licensee's detailed cost estimate, as required in § 50.82(a).
4. Before undertaking major decommissioning activities, the licensee would be required to provide the NRC with a post shutdown decommissioning activities report (PSDAR) that provides a schedule of planned decommissioning activities, an estimate of the decommissioning costs expected to be incurred, and a discussion that demonstrates that environmental impacts are covered by previous environmental impact statements. The NRC would then inform the public of the licensee's intent to decommission, make the PSDAR available for public comment, and hold a public meeting in the vicinity of the site to describe the planned activities and hear additional public views.
5. After a short period of time for the NRC to consider the public comments (no more than 90 days from the time of NRC's receipt of the PSDAR) and provided the licensee's certification of permanent cessation of operations and permanent removal of fuel from the reactor vessel had been received by the NRC, the licensee would be permitted to perform major decommissioning (i.e., dismantlement) activities. Major decommissioning activities would be permitted to be conducted by the licensee provided they met the criteria in 10 CFR 50.59. The licensee would be prohibited, through rule codification, from performing major decommissioning activities that preclude release of the site for possible unrestricted release, cause significant environmental impacts not previously reviewed, or significantly increase costs (§§ 50.82(a)(6) and (7)). The terms "major decommissioning activity" and "major radioactive components" are defined in § 50.2.
6. Phase II would be comprised of an optional period of storage.
7. Phase III would be initiated when the licensee's application to terminate the license and license termination plan were received by the NRC. At this time, a supplemental environmental report would also be required if there was the possibility of significant environmental impacts not previously covered in other environmental impact statements.
8. The Commission would notice receipt of this information, make the license termination plan available for public comment, and provide opportunity for a Subpart L hearing provided that the spent fuel had been removed from the 10 CFR Part 50 site to another authorized facility. The NRC also would hold a public meeting in the vicinity of the site to describe the planned activities and hear additional public views. The Commission approved license termination plan would become part of the FSAR. (A similar requirement that for a non-power reactor the approved decommissioning plan become part of the FSAR or equivalent would also be imposed.) Termination of the power reactor license could not occur until the Subpart L hearing was completed.
9. Once the license termination plan had been carried out by the licensee and the Commission had determined that the licensee was in compliance with said plan, the Commission would terminate the license. There are two aspects of

these regulatory changes that can affect both power and non-power reactor facilities and are addressed in the rulemaking for purposes of clarification. The first aspect would require that environmental requirements (in 10 CFR Part 51) for restricted release situations be explicitly considered. This would be based on finalization of the proposed decommissioning residual radioactivity criteria rule (59 FR 43200; August 22, 1994). The second clarifies that a license that has expired is not terminated until the Commission terminates it, and further clarifies what conditions prevail under such circumstances. This provision is consistent with NRC requirements for other licensees and avoids any gaps in licensing of regulated facilities. This same rationale applies to both power and non-power reactors. 10. For nuclear power reactor licensees whose facilities were in certain stages of decommissioning, before this rule became effective, requirements for complying with this final rule would be provided for.

3. Alternatives.

The conceptual approach and its implementation presented in the objectives requires that all the elements described be retained for cohesiveness. Therefore, the following alternatives considered in this regulatory analysis are for all of the objectives described above.

3.1 Alternative - Take No Action.

This alternative was rejected because it would not clarify the decommissioning process for power reactors, or for certain specifics of non-power reactors. This alternative would not be responsive to addressing the current resource burdens for the Commission and its licensees.

3.2 Alternative - Regulatory Guidance.

This alternative was rejected because it would not provide the necessary regulatory basis to mandate particular licensee actions. In order to maintain regulatory flexibility consistent with current regulatory needs, many substantive changes to the way in which decommissioning activities are defined and permitted to be performed in the regulations are necessary.

3.3 Alternative - Rulemaking.

This alternative was selected because it would codify procedures and definitions for decommissioning activities that have been dealt with on a case specific basis and revise requirements which presently exist within 10 CFR Parts 2, 50, and 51 and provides a firm regulatory basis for their generic implementation.

4. Regulatory Impact - Qualitative Costs and Benefits.

The detailed analysis of the costs and benefits associated with decommissioning were discussed in the Generic Environmental Impact Statement and Regulatory Analysis accompanying the final decommissioning rule in 1988. The amendments being adopted in this rulemaking serve to replace a large percentage of the case-by-case decommissioning that is occurring under the present regulatory framework. The costs and benefits discussed for the 1988 rule continue to be valid.

The critical elements of the current regulations have been retained, although somewhat modified. Although the amendments to 10 CFR Parts 2, 50, and 51 replace many current requirements on nuclear power reactor licensees, they would not result in lessening the safety objectives of the original requirements, while permitting greater public participation and providing greater flexibility to the licensee in carrying out necessary decommissioning activities. Also, for nuclear power reactor licensees whose facilities were at certain stages of decommissioning before the final rule became effective, requirements for conversion to this final rule are addressed. These requirements are a codification of already existing case-specific requirements and impose minimal burden on licensees.

Recognizing that financial assurance is an important consideration, a preliminary site-specific cost estimate would still be required (§ 50.75(f)) just as in the current rule, as well as submittal of a site-specific cost estimate 2 years after permanent cessation of operation (§ 50.82(a)). (The final rule would require that non-power reactors submit a preliminary decommissioning plan 2 years prior to their cessation of operation because this a more realistic timeframe for such facilities.)

The decommissioning plan requirement for power reactors has been eliminated, and replaced with a requirement for a PSDAR submittal (which describes the licensee's intended decommissioning activities, expected costs, and environmental impacts) and an NRC held public meeting to inform and hear the public views on the licensee's proposed decommissioning activities. The PSDAR, similar to the current rule requirement for the decommissioning plan, must be submitted within 2 years of permanent cessation of operation. Part of the initiation of licensee decommissioning activities, is NRC receipt of the licensee's certifications of permanent cessation of operation and permanent removal of fuel from the reactor vessel. Through codification, once the NRC receives these certifications, the licensee would no longer be permitted to operate the reactor. At this time, the licensee's fees would be substantially reduced (based on § 171.5 definitions) and various Part 50 technical requirements eliminated or modified. These 10 CFR Part 50 amendments are specified in this final rule. Thus, the licensee would no longer need to submit a request for a "possession only license" amendment and the process of providing regulatory relief to a licensee that permanently shuts down the reactor can more efficiently and uniformly be accomplished. This would result in resource savings for both the licensee and the NRC.

The mechanism that would allow the licensee to perform decommissioning (dismantlement) activities in this final rule is the process outlined in § 50.59, with additional criteria in § 50.82(a) to ensure that the licensee's review of the planned decommissioning activities are appropriate. The licensee could not use the § 50.59 process for major decommissioning activities until 90 days after the NRC receives the PSDAR (and the receipt by the NRC of the licensee's certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel). Definitions of "major decommissioning activity" and "major radiative components" have also been included in the final rule so that no ambiguities remain concerning use of the § 50.59 process as described in § 50.82(a). Along with the elimination of the requirement to submit a proposed decommissioning plan initially and the allowance for use of the § 50.59 process to undertake decommissioning activities, licensees would be allowed to use decommissioning trust funds provided: (1) The withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2; (2) The expenditure would not reduce the value of the decommissioning trust below an amount necessary to place and maintain the licensee's reactor in a safe storage condition if unforeseen conditions or expenses arise, and (3) The withdrawals would not inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust needed to ensure the availability of funds to ultimately release the site and terminate the license.

After an optional period of storage (up to 60 years after permanent cessation of operation, as in the current rule), the final rule would require that the licensee submit an application to terminate the license along with a license termination plan. A public meeting to inform and hear the public views on the licensee's proposed license termination plan would also

be required. The elements of the termination plan are less complex than those required for a decommissioning plan in the current rule because a decommissioning plan would no longer be required. Dismantlement would be accomplished by the licensee through the use of the § 50.59 process. The rule would also require consideration of a supplemental environmental report if substantive impacts are expected to occur that have not already been considered, as currently required. The remainder of the rule requirements are the same as in the current rule except that prior to Commission approval of the license termination plan, opportunity is given for a Subpart L hearing provided spent fuel has been removed from the 10 CFR Part 50 site to another authorized site. This is a less formal hearing than required in the current rule, a Subpart G hearing, because the decommissioning activities requiring consideration are very similar to those of a materials license facility, where a Subpart L hearing is used. Once the license termination plan has been approved by the Commission, it would be made part of the FSAR because this is a much more effective and efficient way for tracking the status of the facility and for establishing a framework for changes that can be made without Commission approval. (For non-power reactors, the approved decommissioning plan would also be made part of the FSAR or equivalent for the same reasons as those given for the power reactors.)

The final amendments are very similar in concept to what is currently required or has been allowed on a case specific basis. The major significant change in the decommissioning process is the elimination of the need for the licensee to submit a decommissioning plan early in the process and to permit the licensee to begin decommissioning activities that meet the requirements of § 50.59 after 90 days of the PSDAR submittal and provided that fuel had been permanently removed from the reactor vessel. The other significant change is the holding of public information meetings by the NRC. These requirements are not in the current rule, but constitute good practice and make the process more efficient by providing an opportunity for the public to participate and acquire accurate information as the licensee begins the decommissioning and license termination processes. As in the current rule, after an optional period of storage, a more detailed plan would still be required. This more detailed plan becomes in the final rule the license termination plan that covers the remainder of activities requiring completion to terminate the license, other than dismantlement activities that now would be covered under § 50.59. The primary purpose for this plan is for the NRC to have an opportunity to review and approve the licensee's site release plans. In some situations, use of trust funds have been allowed before final decommissioning plan approval by the NRC. The final amendments allow such use to be applied in a more uniform manner without compromising the purpose of the financial assurance requirements specified through the current rule.

Finally, there are two aspects of the final rule pertaining to power and non-power reactors that are needed for clarification purposes. The first clarifies that an expired license cannot be terminated until the Commission makes such a decision and describes what activities are permitted during the period between license expiration and termination. The second clarifies that, based on finalization of the proposed residual radioactivity criteria rule, licensees planning for restricted release need to consider this as an element in their environmental report.

The final rule amendments do not compromise health and safety, are more easily implemented by licensees, more efficient in their design, and less complex than current rule requirements, and allow the public to more fully participate in the decommissioning process, while being responsive to current licensing needs. The cost of the revised regulation, aside from the cost of codification-which is relatively minor, is no more than and most likely considerably less than the current rule requirements. When this likely reduction is multiplied by the 109 current power reactor licensees, the potential for cost savings is considerable.

5. Decision Rationale.

The qualitative assessment of costs and benefits discussed above, leads the Commission to the conclusion that the overall impact of the rulemaking will be a reduction in licensee costs, primarily due to the efficiency, uniformity and flexibility of the decommissioning process that these amendments afford. Although there are apparent costs associated with several of the amendments, the Commission believes that those costs are the same ones that would have been incurred by licensees under the current rules and case specific exemptions to their licenses, and that the benefits associated with the entire set of regulatory amendments outweighs the costs.

6. Implementation.

6.1 Schedule.

No implementation problems are expected. No effect on other schedules is anticipated.

ATTACHMENT 3

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT ON FINAL RULE ON "DECOMMISSIONING OF NUCLEAR POWER REACTORS"

- I. THE ACTION
- II. THE NEED FOR THE RULEMAKING ACTION
- III. ALTERNATIVES TO THE RULEMAKING ACTION
 - Alternative 1 - No Action
 - Alternative 2 - Regulatory Guidance
 - Alternative 3 - Rulemaking
- IV. ENVIRONMENTAL IMPACTS OF THE ACTION
- V. FINDING OF NO SIGNIFICANT IMPACT
- VI. MAJOR REFERENCE DOCUMENTS
- VII. PERSONS CONTACTED: None.

I. THE ACTION

The action is a final rule to amend 10 CFR Parts 2, 50, and 51 to clarify ambiguities in the current regulations, and to codify procedures and terminology that have been used on a case-by-case basis. Most of the programmatic aspects that control licensee decommissioning requirements are specified in final amendments to § 50.82(a). Once the licensee of a power reactor certifies to the NRC its intent to permanently cease operation and that fuel has been permanently removed from the reactor vessel, through rule codification, the licensee would no longer be permitted to operate the facility, and again through rule codification, certain technical requirements of 10 CFR Part 50 affecting decommissioning activities would be modified. The licensee would be required to submit a post shutdown

decommissioning activity report (PSDAR) (within 2 years after the licensee certification of permanent cessation of operation) that specifies decommissioning activity schedules, estimated decommissioning costs, and an assessment of environmental considerations. The licensee would be prohibited, through rule codification, from performing major decommissioning activities that preclude release of the site for possible unrestricted release, cause significant environmental impacts not previously reviewed, or result in a lack of reasonable assurance that adequate funds would be available for decommissioning. Within 90 days after the NRC receives the PSDAR, and approximately 30 days after the NRC holds a public meeting on this subject, the licensee could perform major decommissioning activities provided it meets the criteria specified in 10 CFR 50.59 and provided that the NRC has received the licensee's certifications of permanent cessation of operations and permanent removal of fuel from the reactor vessel. The licensee could also use decommissioning trust funds throughout the decommissioning process, provided they follow the criteria outlined in 10 CFR 50.82. Two years before the licensee's termination of license date, the licensee would be required to submit a license termination plan, along with an application for license termination, and a supplemental environmental report addressing any significant environmental impacts not previously considered that could result from the intended actions. At this time the Commission would hold a public meeting and provide opportunity for a Subpart L hearing (proposed addition of § 2.1201(c)(3)) (provided spent fuel had been removed from the 10 CFR Part 50 site to another authorized facility), and the license could not be terminated until any Subpart L hearing was completed. The approved license termination plan would be made a part of the FSAR. A similar provision for incorporation of the approved decommissioning plan for non-power reactor licensees into the FSAR or equivalent would also be made. Once the licensee has completed decommissioning in accordance with the site termination plan and the Commission is satisfied with the licensee's action, the Commission will terminate the license.

For clarification purposes, the terms "permanent cessation of operation," "permanent fuel removal," "major decommissioning activity," and "major radioactive components" have been defined in 10 CFR 50.2. The certification requirements for "permanent cessation of operation," and "permanent fuel removal" have been specified in 10 CFR 50.4.

There are two aspects of the final rulemaking that can affect both power and non-power reactors, and are addressed for purposes of clarification. The first proposes that environmental requirements for restricted release situations be explicitly considered (in 10 CFR Part 51) and is based on the proposed decommissioning residual radioactivity criteria rule (59 FR 43200; August 22, 1994). The second clarifies that a license that has expired is not terminated until the Commission terminates it, and further clarifies what conditions prevail under such circumstances.

II. THE NEED FOR THE RULEMAKING ACTION

The current regulations in 10 CFR Parts 2, 50, and 51 set forth a process for decommissioning that is inadequate for current licensing needs. When the decommissioning regulations were published on June 27, 1988 (53 FR 24018), and adopted, it was assumed that the majority of nuclear power reactor licensees would decommission at the end of the operating license. Since that time, a number of licensees have shut down prematurely without having submitted a decommissioning plan, and requested exemptions from operating requirements to address their status of no longer having fuel present in the reactor. Each of these cases has been handled individually without clearly defined generic requirements.

The current decommissioning process tends to result in an inefficient use of licensee and NRC resources and lacks the flexibility necessary to encompass current regulatory needs. In addition, the public is less able to understand and participate in the process and recognize the requirements and restraints imposed on licensees from the time of permanent cessation of operation through to license termination. Thus, a restructuring of the decommissioning requirements, codification of past Commission adjudicatory decisions on decommissioning, and a clarification of terminology is believed necessary.

III. ALTERNATIVES TO THE RULEMAKING ACTION

As required by § 102(2)(E) of NEPA (42 USC 4322(2)(E)), possible alternatives to the action have been considered. Three alternatives were considered.

Alternative 1 - No Action

Alternative 1 maintains the status quo which involves case-by-case decisions with respect to decommissioning issues, and no clarification of ambiguities in 10 CFR Parts 2, 50, and 51 regulations. The impacts would be continued inefficient use of licensee and NRC resources, less participation by the public in the decommissioning process, and less understanding by the public of the requirements and restraints imposed on permanently shut down nuclear power plant licensees.

Alternative 2 - Regulatory Guidance

Under this alternative, the NRC would issue regulatory guidance to address the ambiguities and issues which are being considered as a subject for rulemaking. This action would not by definition provide the mandatory regulatory basis necessary to clarify 10 CFR Parts 2, 50, and 51 requirements.

Alternative 3 - Rulemaking

Under Alternative 3, the NRC would amend the current regulations in 10 CFR Parts 2, 50, and 51 to clarify ambiguities in the requirements, codify elements of existing Commission adjudicatory decisions that deal with decommissioning issues, and define existing terminology. Licensees, the NRC, and the public would have a fuller understanding of the decommissioning process delineated in the proposed rule for nuclear power plants, and the effects of license termination and conditional release would be clarified for non-power reactors as well.

IV. ENVIRONMENTAL IMPACTS OF THE ACTION

The Commission has examined the current regulatory framework for decommissioning to ascertain the appropriate regulatory path to take that would ameliorate current licensing concerns without compromising health and safety. The final rule would preserve the substantive elements of the current rules, but allow the licensee more latitude, subject to appropriate constraints, in completing the necessary decommissioning activities. Four of the proposed rule changes involve the clarification of existing, or creation of new reporting requirements which the NRC has previously determined to meet the criteria for a categorical exclusion in 10 CFR 51.22(c)(3). The three new amendments are the requirements for a licensee to certify to permanent cessation of operation and permanent removal of fuel from the reactor vessel in § 50.82 (a)(1) and the requirement for a post shutdown decommissioning activities report in § 50.82(a)(4). The clarification of an existing reporting requirement is the amendment to § 50.71 which extends the reporting requirements for FSAR updating and to licensees that have certified permanent cessation of operations. The amendment to 10 CFR Part 2 to afford an opportunity for a Subpart L hearing at license termination plan approval, and the amendment to 10 CFR 50.82 to require that NRC convene public meetings fall within categorical exclusions to 10 CFR 51.22(1) and (2).

The remaining amendments relate to programmatic modifications to the decommissioning process, clarification of ambiguous regulations, defining terms used in the revised regulations, and codifying aspects of Commission adjudicatory decisions involving decommissioning issues. For example, regarding programmatic modification, the decommissioning plan requirement in the current rule has been replaced by the PSDAR requirement (submitted within 2 years of permanent cessation of operation - the same time period as the current rule) followed by the requirement of a license termination plan. This is similar to the current rule requirement for a storage decommissioning mode where a less detailed decommissioning plan is initially required followed by a more detailed one prior to license termination activities. Also, the allowance of licensee decommissioning trust funds to be used at various stages of the decommissioning process is similar to the current rule requirements regarding financial assurance because criteria are imposed that ensure that: (1) The withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2; (2) The expenditure would not reduce the value of the decommissioning trust below an amount necessary to place and maintain the licensee's reactor in a safe storage condition if unforeseen conditions or expenses arise, and (3) The withdrawals would not inhibit the ability of the licensee to complete funding of any shortfalls in the decommissioning trust needed to ensure the availability of funds to ultimately release the site and terminate the license. As a final example, certain provisions of 10 CFR Part 50 would be amended to clarify their applicability or limited applicability to permanently shut down nuclear power reactors. These amendments would not create new requirements, but would serve to clarify existing requirements and in many instances eliminate the need for licensees to seek exemptions from these requirements to address their status of no longer having fuel in the reactor vessel. Establishing through codification the requirement that licensees that have permanently ceased operation and permanently removed fuel from the reactor vessel can no longer operate, does not create a new requirement on the licensee beyond those currently imposed through 10 CFR Part 50 and allows for a substantial reduction in licensing fee, at that time, based on the definition of an "operating license" presented in § 171.5. Finally, establishing through rule codification the constraints that prohibit licensees from performing major decommissioning activities that preclude release of the site for possible unrestricted release, cause significant environmental impacts not previously reviewed, or result in a lack of reasonable assurance that adequate funds would be available for decommissioning, ensures that the licensee's decommissioning activities will be in compliance with NEPA. At the license termination stage, where additional NEPA considerations may be warranted, the final rule requires the NRC to perform an environmental assessment before permitting the licensee's intended actions, as in the current rule requirements.

The environmental impacts of these actions are those which were discussed in the Final Generic Environmental Impact Statement (GEIS) on decommissioning of nuclear facilities (NUREG-0586). Licensees of permanently shutdown nuclear power reactors should be able to conduct decommissioning activities in a more timely and efficient manner under the revised regulatory scheme. In the final GEIS, the NRC found that once the facility is no longer operating, decommissioning has many positive environmental impacts. These include the return of valuable lands and structures to the public domain and the elimination of potential problems associated with an increasing inventory of radioactively contaminated facilities. The major adverse impacts associated with decommissioning are routine occupational exposures and the commitment of small amounts of land to radioactive waste disposal. Other impacts, including public radiation doses, were shown to be minor. Because the regulatory revisions do not fall outside the scope of the GEIS or create new requirements beyond the reporting requirements discussed, it can be concluded that the rulemaking will have no adverse impact on the environment.

V. FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in 10 CFR Part 51, that the amendments to 10 CFR Parts 2, 50, and 51 revising and clarifying the regulatory process for decommissioning nuclear power reactors, will not have a significant impact on the quality of the human environment and that an environmental impact statement is not required. This determination is based on the foregoing environmental assessment performed on accordance with the procedures and criteria in 10 CFR Part 51 "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Function."

VI. MAJOR REFERENCE DOCUMENTS

1. Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, NUREG-0586, U.S. Nuclear Regulatory Commission, Office of Nuclear Regulatory Research, Washington, DC, August 1988.

VII. PERSONS CONTACTED: None.

ATTACHMENT 4

NRC REVISIONS TO GENERAL REQUIREMENTS FOR DECOMMISSIONING NUCLEAR POWER PLANTS

The Nuclear Regulatory Commission (NRC) is amending its regulations for decommissioning nuclear power plants. The revisions reflect experience gained in recent decommissioning cases, clear up ambiguities in the current regulations and codify practices that have been used for some licensees on a case-by-case basis.

Decommissioning refers to permanently removing a facility from service and reducing radioactivity on the property to levels that would permit termination of the license.

In 1988, the Commission issued general requirements on decommissioning that included technical and financial criteria and dealt with decommissioning planning needs, timing, funding mechanisms and environmental review requirements.

Since that time, several licensees have permanently ceased operations earlier than expected, without having submitted the decommissioning plan required under the current regulations. In addition, these licensees have requested exemptions from some safety requirements to reflect their status of no longer having fuel present in the reactor and therefore having a greatly reduced risk of accidents.

Because the regulations did not entirely fit the situations, these cases were handled individually on a site-by-site basis. The Commission believes that the final amendments will bring increased efficiency and uniformity to the decommissioning process.

The final regulations will require that:

- (1) Within 30 days after a nuclear power plant licensee decides to cease operations permanently, the licensee must submit a written certification to the NRC and

(2) When the licensee permanently removes nuclear fuel from the reactor vessel, the licensee must submit another written certification to the NRC.

When the NRC receives these certifications, the licensee's authority to operate the reactor or load fuel into the reactor vessel will be removed by regulation. This would entitle the licensee to a fee reduction and eliminate the obligation to follow certain requirements needed only during reactor operation. Within 2 years after submitting the permanent cessation of operations certification, the licensee would have to submit a post-shutdown decommissioning activities report (PSDAR) to the NRC. This report would provide a description of the licensee's planned decommissioning activities, along with a schedule for their accomplishment, and an estimate of expected costs.

The PSDAR would also include a discussion that provides the reasons for concluding that environmental impacts associated with the site-specific decommissioning activities have already been considered in previously prepared environmental reports or environmental impact statements. If not, the licensee would have to request a license amendment for approval of the activities and submit an environmental report on the additional impacts for NRC's consideration and possible preparation of an environmental impact statement.

After receipt of a PSDAR, the NRC would publish a notice of receipt, make the PSDAR available for public comment, and hold a public meeting in the vicinity of the plant to discuss the licensee's plans.

Ninety days after the NRC receives the PSDAR, and generally 30 days after the public meeting, the licensee could begin to perform major decommissioning activities without specific NRC approval. These activities could include permanent removal of major components such as the reactor vessel, steam generators, large piping systems, pumps and valves.

The final regulations state that the major decommissioning activities that could be conducted without specific prior NRC approval must not:

- (1) Foreclose release of the site for possible unrestricted use,
- (2) Result in there being no reasonable assurance that adequate funds will be available for decommissioning, or
- (3) Cause any significant environmental impact not previously reviewed. If any major decommissioning activity would not meet these terms, the licensee would have to submit a license amendment request, which would provide an opportunity for a public hearing.

The revisions to the regulations would also allow licensees to use some money from their NRC-required decommissioning trust funds without specific NRC approval, provided the withdrawal of money (1) would be for expenses for legitimate decommissioning activities, (2) would not reduce the trust fund below an amount necessary to place and maintain the reactor facility in a safe storage condition if unforeseen conditions or expenses arise, and (3) would not inhibit the licensee's ability to complete funding of any shortfalls in the funds needed to ensure the ultimate release of the site and termination of the license.

A total of 23% (3% initially and 20% 90 days after the submittal of the PSDAR) of a generic amount specified in the regulations could be used by the licensee for decommissioning activities without prior NRC approval. The remaining decommissioning trust funds would be available to the licensee when the licensee submits a detailed site-specific decommissioning cost estimate to the NRC.

Reactors that are permanently shut down and have no fuel in the reactor vessel have a reduced probability of accidents. The final rule would therefore eliminate or revise operating reactor requirements that the Commission has determined have limited or no applicability to these plants, but extend others that do.

The revised regulations require that, before completing decommissioning and within a storage period up to 60 years, the licensee must submit an application to the NRC to terminate the license, along with a license termination plan. This plan would have to contain a description of the locations, types and amounts of radioactivity on site; a description of any remaining dismantlement activities to be accomplished; plans for site cleanup; detailed plans for a final radiation survey; a description of the planned end use of the site (if it will not be released for unrestricted use); an updated site-specific analysis of remaining decommissioning costs; and a supplement to the environmental report describing any new information or significant environmental change associated with the licensee's proposed decommissioning activities.

The NRC would publish a notice of receipt of this license termination plan, would make the license termination plan available for public comment, and hold a public meeting in the vicinity of the plant to discuss the licensee's plans, and provide an opportunity for a public hearing.

After completion of the hearing and resolution of public comments, and after the Commission is satisfied that the approved plan has been properly implemented, the Commission would terminate the license.

The revised regulations provide requirements for power reactor licensees that are at certain stages of decommissioning, before the date the final rule becomes effective, for converting to the final rule requirements. However, licensees involved in court hearings cannot convert to the final rule specified decommissioning process until the hearing is completed and must abide by any orders arising from the proceedings.

Most of the changes in the final regulations would apply only to licensed nuclear power reactors that produce electricity. However, some of the changes would apply also to university research reactors and other non-power reactors. They include:

- (1) When a power reactor licensee submits a license termination plan, or a non-power reactor licensee submits a decommissioning plan, if the licensee were to propose restricted release of the site, the licensee would have to evaluate the environmental effects of that restricted release.
- (2) A license that has expired is not terminated until the Commission notifies the licensee in writing that the license is terminated. During any period of continued effectiveness beyond the license expiration date, the licensee is prohibited from operating the facility and must limit activities to actions necessary to decommission and decontaminate the facility or actions necessary to maintain the facility in a safe condition.

Details of the final regulations are contained in a *Federal Register* notice published on _____.

The Honorable Lauch Faircloth, Chairman
Subcommittee on Clean Air, Wetlands, Private
Property and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Enclosed for the information of the Subcommittee is a copy of a notice of final rule to be published in the *Federal Register*. The Nuclear Regulatory Commission (NRC) is amending its regulations on decommissioning for reactor licensees.

The final rule will revise specific regulations pertaining to nuclear reactors that permanently cease operation. These changes, primarily for nuclear power reactors, include provisions in Parts 2, 50, and 51 to clarify the applicability of certain regulations to permanently shutdown nuclear power reactors and provide for public participation in the process. The amendments clarify ambiguities in the current regulations and codify practices which have been utilized for other licensees on a case-by-case basis.

As finalized, the licensee would submit a report of the planned activities to the NRC. The NRC would then hold a public meeting to discuss the planned activities and hear public comments on the proposed activities. Within 90 days of submittal of the report (and generally 30 days after the public meeting) licensees could begin major decommissioning activities. Licensees could access a limited amount (up to 23%) of their decommissioning funds without prior NRC approval. The licensing fee would also be substantially reduced because the license would no longer meet the definition of an operating license as specified in the requirements.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure: Federal Register Notice

cc: Senator Bob Graham

The Honorable Dan Schaefer, Chairman
Subcommittee on Energy and Power
Committee on Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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As finalized, the licensee would submit a report of the planned activities to the NRC. The NRC would then hold a public meeting to discuss the planned activities and hear public comments on the proposed activities. Within 90 days of submittal of the report (and generally 30 days after the public meeting) licensees could begin major decommissioning activities. Licensees could access a limited amount (up to 23%) of their decommissioning funds without prior NRC approval. The licensing fee would also be substantially reduced because the license would no longer meet the definition of an operating license as specified in the requirements.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosure: Federal Register Notice

cc: Representative Frank Pallone