



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 17, 2001

OFFICE OF THE  
SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM:        SECY-00-0210

TITLE:                    DENIAL OF PETITION (PRM 51-7) FOR  
RULEMAKING TO DELETE THE REQUIREMENT  
FROM 10 CFR PART 51 TO CONSIDER  
SEVERE ACCIDENT MITIGATION  
ALTERNATIVES IN OPERATING LICENSE  
RENEWAL REVIEWS

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of January 17, 2001.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette Vietti-Cook  
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc:        Chairman Meserve  
          Commissioner Dicus  
          Commissioner Diaz  
          Commissioner McGaffigan  
          Commissioner Merrifield  
          OGC  
          EDO  
          PDR

VOTING SUMMARY - SECY-00-0210

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. MESERVE	X				X	1/2/01
COMR. DICUS	X					12/12/00
COMR. DIAZ	X				X	12/20/00
COMR. McGAFFIGAN	X				X	10/31/00
COMR. MERRIFIELD	X					12/26/00

COMMENT RESOLUTION

In their vote sheets, all Commissioners approved the staff's recommendation and some provided additional comments. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on January 17, 2001.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook  
Secretary of the Commission

FROM: CHAIRMAN MESERVE

SUBJECT: SECY-00-0210 - DENIAL OF PETITION (PRM 51-7) FOR  
RULEMAKING TO DELETE THE REQUIREMENT FROM 10  
CFR PART 51 TO CONSIDER SEVERE ACCIDENT  
MITIGATION ALTERNATIVES IN OPERATING LICENSE  
RENEWAL REVIEWS

Approved   X with comments and edits   Disapproved \_\_\_\_\_ Abstain  
\_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS:

See attached comments and edits.



\_\_\_\_\_  
SIGNATURE

Jan. 2, 2011

\_\_\_\_\_  
DATE

Entered on "AS" Yes   X   No \_\_\_\_\_

## COMMENTS OF CHAIRMAN MESERVE ON SECY-00-0210

I approve the staff's recommendation to deny the petition for rulemaking, subject to the attached edits to the Federal Register notice and subject to the editorial suggestions proposed by Commissioners Diaz and McGaffigan.

The staff's analysis may serve to conflate two separable arguments that are advanced by the petitioner. First, the petitioner cites a line of federal cases holding that there is no need to evaluate environmental impacts if the proposed federal action does not change the *status quo*. The notice serves to distinguish these cases on the basis that license renewal in fact represents a change of the *status quo* in the sense that, if granted, license renewal will allow the perpetuation of the environmental impacts of operation for an additional period. The staff's analysis is supported by the case law. See Confederated Tribes and Bands of the Yakima Indian Nation v. FERC, 746 F.2d 466, 476-77 (9<sup>th</sup> Cir. 1984), cert. denied, 471 U.S. 1116 (1985).

Second, the petitioner emphasizes that the substantive decision to be made under Part 54 does not include evaluation of Severe Accident Mitigation Alternatives (SAMAs) and that, as a result, the scope of the NEPA review should be similarly limited. However, neither the petitioner nor the staff cite any federal cases that specifically address whether a federal agency's decision criteria can circumscribe the scope of the impacts that must be evaluated in the EIS. Staff does note that EISs customarily encompass environmental impacts that extend far beyond the substantive decision criteria. And this approach seems consistent with the philosophy that EISs should provide a thorough review of environmental consequences and should facilitate broad dissemination of environmental information, but do not require particular results. See, e.g., Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348-51 (1989). A narrowing of the scope of an EIS to just those substantive matters that are encompassed by the decision criteria would arguably confine the environmental analysis too narrowly. See Limerick Ecology Action v. NRC, 869 F.2d 719, 730-31 (3d Cir. 1989).

The staff observes that, although the potential for a severe accident is quite low, we cannot conclude at this time that the risk is so remote and speculative as to provide a foundation for a generic decision to eliminate SAMAs from consideration under NEPA. The staff reports that, while the Commission has undertaken significant research in the area of severe accidents for individual plants (the IPE and IPEEE program), additional resources would be necessary to extrapolate the insights we have gained to provide a foundation for such a generic determination. While I accept the staff's conclusion, I believe the staff should look for

ways to use the information it has already gathered through the IPE and IPEEE program, as well as other risk-informed activities, to streamline and expedite the plant-specific consideration of SAMAs. Further, if new information indicates that a generic determination concerning SAMAs is feasible, the staff should promptly notify the Commission.

assessment performed for license renewal, will be corrected under the terms of the current license and are not within the scope of the license renewal review. The petitioner then states that actions to evaluate and address SAMAs are part of each licensee's current licensing basis, citing the IPE and IPEEE program to identify and evaluate plant-specific severe accident vulnerabilities and ways to mitigate those vulnerabilities.

Concluding that SAMAs are outside of the scope of a 10 CFR Part 54 license renewal review, the petitioner then presents legal arguments for deleting SAMAs from the NEPA review. The essence of these arguments is that 10 CFR Part 54 defines the scope of the proposed Federal action, and that Federal action establishes the scope of environmental consequences of license renewal that are to be reviewed under NEPA. Citing several court cases, the petitioner asserts that this approach is consistent with the "rule of reason" that generally governs environmental impact reviews under NEPA. The petitioner then states, "Thus, under the 'rule of reason,' the impacts appropriately considered under NEPA would be those that reasonably flow from the Part 54 decision-making." Next, the petitioner cites two cases to support the position that there should be no consideration of SAMAs for license renewal. In City of Aurora v. Hunt, the court ruled that a new procedure to use a specific airport runway in particular weather conditions involved "...no significant safety impact...to trigger further assessment or inquiry under NEPA." 749 F.2d 1457, 1468 n. 8 (10<sup>th</sup> Cir. 1984) overruled on other grounds by Village of Los Ranchos de Albuquerque v. Marsh, 956 F.2d 970 (10<sup>th</sup> Cir. 1992). In the second court case, Upper Snake River Chapter of Trout Unlimited v. Hodel, the court ruled that the Department of Interior did not have to prepare an environmental impact statement (EIS) to adjust the flow of water from a dam to accommodate drought conditions where the range of flow change was within the contemplation of the original project. 921 F.2d 232, 235 (9<sup>th</sup> Cir. 1990). The petitioner concludes from these decisions that a NEPA review of SAMAs is not required in the license renewal review because, (1) the current licensing basis is

Comment 1: A utility commented that the costs of performing the SAMA reviews required by Part 51 are not justified when compared to the small potential safety benefits that result from the reviews, when the costs associated with implementing changes to realize those benefits are evaluated, and when the fact that the reviews are largely duplicative of the previously completed Individual Plant Examination (IPE) and Individual Plant Examination for External Events (IPEEE) programs is considered.

Response: The NRC believes that it should continue to consider SAMAs for individual license renewal applications to continue to meet its responsibilities under NEPA. That statute requires NRC to analyze the environmental impacts of its actions and consider those impacts in its decisionmaking. In doing so, Sec. 102(2)(C) of NEPA implicitly requires agencies to consider measures to mitigate those impacts when preparing impact statements. See Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989). NRC's obligation to consider mitigation exists whether or not mitigation is ultimately found to be cost-beneficial and whether or not mitigation ultimately will be implemented by the licensee. Id. The NRC understands that a SAMA analysis can be relatively expensive and is prepared to discuss ways in which SAMA analyses can be conducted efficiently while, at the same time, ensuring that NRC meets its NEPA responsibilities.

Comment 2: Granting the petition would continue the NRC's recent course of "regulatory subtraction" during which it has "methodically amputated and dismantled its statutory authority." Further, numerous site-specific and generic challenges have precipitated "beyond design basis" events, and demonstrate that it is imperative to maintain Severe Accident Mitigation Alternatives evaluations.

Response: The NRC has denied the petition because it believes that the legal arguments presented are insufficient to demonstrate that a license renewal NEPA review need not consider alternatives to mitigate the potential for and consequences of severe accidents.

Comment 3: Given the NRC's shrinking budget, "this type of frivolous legal action must be indexed to punitive damages." NEI "must be held accountable, and reimburse the NRC for all legal and administrative costs associated with this malicious petition."

Response: While NRC has denied the petition, NRC does not believe that there are any aspects of the submittal that would suggest an abuse of the petition process. Accordingly, whether or not reimbursement measures are even available to the Commission, no Commission action is warranted in this regard.

#### Reasons for Denial

The Commission is denying the petition for the following reasons:

1. Scope of the License Renewal Rule.

The petitioner's principal argument for the elimination of SAMAs as part of the NEPA review associated with individual license renewal reviews is that the scope of license renewal establishes a basis for deleting SAMAs from associated NEPA reviews. In particular, the petitioner believes that because the NRC's safety review under Part 54 does not require consideration of all aspects of plant operation and administration, the agency's review of environmental impacts under NEPA should be similarly limited. In its petition and subsequent comments, NEI identified several Federal court cases and NRC decisions to support its position.<sup>1</sup> The petitioner believes that the primary thrust of these cases is that no consideration

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<sup>1</sup> City of Aurora v. Hunt, 749 F.2d 1457 (10<sup>th</sup> Cir. 1984)(overruled on other grounds); Upper Snake River Chapter of Trout Unlimited v. Hodel, 921 F.2d 232, 235 (9<sup>th</sup> Cir. 1990); ~~the~~ Matter of Consumers Power Company, (Big Rock Point Nuclear Plant), ALAB, 636, 13 NRC 312 (1982); and In the Matter of General Electric Company (GE Morris Operation Spent Fuel

consider the effects that will occur if a risk is <sup>realized, where NO INCREASE RISK IS PERMITTED,</sup> permitted, as here, no significant safety impact exists to trigger further assessment or inquiry under NEPA.” 749 F.2d at 1468, n. 8.

While certain aspects in the City of Aurora decision provide some general support for the petitioner’s argument, the facts in that case do not appear to be sufficiently analogous to support the elimination of SAMAs reviews for license renewal. First of all, the Court found the FAA’s decision, <sup>to permit the new procedure</sup> in essence, served as a finding of an equivalent level of flight safety and thus allowed the FAA to meet its NEPA obligations even though safety was not explicitly considered in the EA itself. Under NRC’s license renewal process, NRC’s review under Part 54 does not itself meet the agency’s NEPA obligations. Environmental issues such as the potential impacts of severe accidents during the license renewal term do not fall under the Part 54 review. Accordingly, unlike the FAA in City of Aurora, NRC cannot use the Part 54 process as the vehicle for meeting its NEPA responsibilities for considering SAMAs in the license renewal context in the same way that the FAA was allowed to use its procedure approval process in City of Aurora. Secondly, it should be noted that, absent the NRC’s decision to approve a license renewal application, the licensee’s plant will not operate an additional 20 years. Accordingly, the NRC’s action is a “but for” cause of those additional impacts and NRC has the responsibility to consider those impacts under NEPA. In City of Aurora, the FAA’s rule <sup>permitted the use of a new landing procedure</sup> effected changes to ~~ongoing operations~~ <sup>the current landing procedures</sup> at the airport. While there is no explicit discussion in the decision, it appears that ~~operations~~ <sup>the current landing procedures</sup> at the airport would have continued whether or not FAA had issued the new procedure. Accordingly, the status quo in the context of the City of Aurora decision appears to have been the continued operation of the airport, whereas the status quo in the context of license renewal is the expiration of the facility’s operating license.

the plant's continued operation) of the spent fuel pool licensing decision. 13 NRC at 328. The petitioner's comments indicate that:

The Appeal Board correctly noted that, by granting the license amendment request, the Commission is not also issuing approval to alter any other aspect of the plant's operation or the licensed operating term of the facility.

Petition for Rulemaking (Docket No. PRM-51-7; July 13, 1999), letter from NEI to Secretary, NRC, dated November 16, 1999, at pp. 2, 3. The Commission believes that the petitioner's own statement here demonstrates the lack of support Consumers Power Company provides for its own position. In the context of license renewal, the Commission is, in fact, approving an extension of the licensed operating term of the facility. Accordingly, the facts in Consumers Power Company are <sup>not analogous to those presented by</sup> ~~reversed in the context~~ of license renewal. While the Commission has appropriately decided through rulemaking that it may focus its safety evaluation on certain matters specified in Part 54, its overall license renewal decision applies to the operation of the entire plant. Therefore, the limited scope considered in Consumers Power Company is not present in the license renewal context.

Finally, petitioners have also cited General Electric (Morris Operation Spent Fuel Storage Facility) LBP-82-14, 15 NRC 530 (1982). In that case, the Atomic Safety and Licensing Board ruled that NRC did not have to issue an EIS for the license renewal of a storage facility. However, in that case, the NRC staff did issue an environmental impact appraisal (referred to under current NRC regulations as an environmental assessment (EA)) for the action. There is no suggestion that the NRC staff was free to eliminate or ignore consideration of the impacts of the action. Rather, the Board agreed with the NRC staff that the impacts of the action were not significant enough to warrant the preparation of a full EIS and, instead, an environmental impact appraisal was sufficient. The Commission believes that the preparation of EISs, not EAs, are appropriate in the context of license renewal. However, whether an EIS or an EA is

### 3. Consideration of Remote and Speculative Impacts.

The Commission agrees with the petitioner that there is some support in the case law for the proposition that NEPA does not require the consideration of remote and speculative risks.<sup>5</sup> The court in the Limerick proceeding rejected the NRC's argument that severe accidents were remote and speculative because the court could find no basis for the conclusion in the NRC record. Id. at 739-741. At this time, the Commission is not prepared to reach the conclusion that the risks of all severe accidents in the context of license renewal are so unlikely as to warrant their elimination from consideration in our NEPA reviews. Even though there is a low probability of a severe accident, the NRC has invested considerable resources toward understanding potential severe accident sequences and alternatives for further reducing the probability of and mitigating the consequences of severe accidents, but has not yet established an agency record that severe accidents may be eliminated from NRC's NEPA reviews. In reviewing licensing actions outside of the license renewal context, it may be possible for the NRC to conclude that certain severe accident scenarios are remote and speculative and do not warrant detailed consideration for the purposes of the NEPA review for that particular NRC action. However, for the purposes of consideration of severe accidents in the context of license renewal NEPA reviews, the NRC staff has not developed the necessary basis for concluding that such occurrences are remote and speculative, and thus inappropriate for NRC review under NEPA.

In its comments, the petitioner cited two cases which, in its view, demonstrate that NEPA's requirements are satisfied where potential impacts to the environment are remote and difficult to quantify and ongoing regulatory safeguards are in place to protect against potential

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<sup>5</sup>See, e.g., Limerick Ecology Action v. NRC, 869 F.2d at 739; San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1300-01 (D.C.Cir. 1984).

NOTATION VOTE

RESPONSE SHEET

2000 OCT 24 AM 9: 33

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER DICUS  
SUBJECT: **SECY-00-0210 - DENIAL OF PETITION (PRM 51-7) FOR  
RULEMAKING TO DELETE THE REQUIREMENT FROM 10  
CFR PART 51 TO CONSIDER SEVERE ACCIDENT  
MITIGATION ALTERNATIVES IN OPERATING LICENSE  
RENEWAL REVIEWS**

Approved  Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS:

NONE.

Greta Joy Dicus  
SIGNATURE

December 12, 2000  
DATE

Entered on "STARS" Yes  No \_\_\_\_\_

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER DIAZ  
SUBJECT: **SECY-00-0210 - DENIAL OF PETITION (PRM 51-7) FOR  
RULEMAKING TO DELETE THE REQUIREMENT FROM 10  
CFR PART 51 TO CONSIDER SEVERE ACCIDENT  
MITIGATION ALTERNATIVES IN OPERATING LICENSE  
RENEWAL REVIEWS**

Approved <sup>x</sup> *td* Disapproved \_\_\_\_\_ Abstain \_\_\_\_\_

Not Participating \_\_\_\_\_

COMMENTS:

See Attached Comments.

Nils J. Diaz *Nils J. Diaz*  
\_\_\_\_\_  
SIGNATURE

12/20/00  
\_\_\_\_\_  
DATE

Entered on "STARS" Yes *X* No \_\_\_\_\_

-REC'D BY TUG-

**COMMISSIONER DIAZ' COMMENT ON SECY-00-0210**

I approve the staff's recommendation to publish the Notice of Denial of Rulemaking Petition in the *Federal Register* and to issue the letter of denial to the petitioner.

Severe accident mitigation alternatives (SAMAs) are not specifically addressed in 10 CFR 54 (Requirements for Renewal of Operating Licenses for Nuclear Power Plants); however, I believe it is prudent for the Commission to fulfill its responsibility under the National Environmental Policy Act (NEPA) and consider the potential environmental impacts resulting from the continued operation of a nuclear power plant. Since we can not conclude generically that all severe accidents are remote and speculative, SAMAs should be considered as required in 51.53(c)(3)(ii)(L). I agree with the staff's analysis and reasons for denying the petition. I also note that in its letter dated November 15, 2000, "License Renewal Guidance Documents," the ACRS recommended that "[t]he Severe Accident Management guidelines should be identified as a potential source of information...to confirm that equipment important to safety has not been omitted inadvertently in the scoping process."

I recommend the following insertion at the end of the first full paragraph on page 19 of the draft *Federal Register* notice to prevent or minimize potential misunderstanding of the conclusions regarding consideration of remote and speculative impacts: "This position does not alter the conclusion that, in light of margins of safety and defense-in-depth, the likelihood of radiological offsite consequences is small."

Consistent with NRC's risk-informed regulatory initiatives, I encourage the staff to complete its review of IPEEE submittals on a timely basis and to assess if new information would make it feasible to reclassify severe accidents as a Category 1 issue. Results from this assessment should be forwarded to the Commission for consideration of possible rulemaking activity.

A handwritten signature in black ink, appearing to be 'Diaz', is located at the bottom right of the page.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MCGAFFIGAN

SUBJECT: **SECY-00-0210 - DENIAL OF PETITION (PRM 51-7) FOR  
RULEMAKING TO DELETE THE REQUIREMENT FROM 10  
CFR PART 51 TO CONSIDER SEVERE ACCIDENT  
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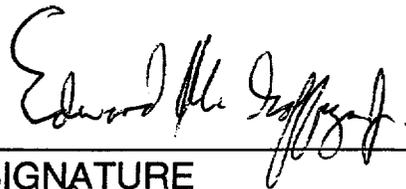
(w/comments and edits)

Approved  Disapproved  Abstain

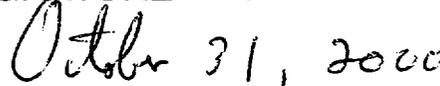
Not Participating

COMMENTS:

See attached comments and edits. (Also see edit to separate Supplemental Material)



SIGNATURE



DATE

Entered on "STARS" Yes  No

Commissioner McGaffigan's Comments on SECY-00-0210

I support the staff recommendation to deny this petition for rulemaking, subject to the attached edits to the Federal Register notice. I find the legal analysis in the Federal Register notice compelling. But I also note that the Severe Accident Mitigation Alternative (SAMA) reviews for both the Calvert Cliffs and Arkansas Nuclear One Unit 1 plants have identified several cost-beneficial enhancements for the licensee to pursue. In the Calvert Cliffs case the licensee has committed to pursuing enhancements to reduce its core damage frequency.

I do not believe that severe accidents are a "remote and speculative risk" and thus qualify for elimination from NRC's NEPA reviews. Licensees have used probabilistic risk assessment methodologies to calculate core damage frequencies and large early release frequencies for the 103 operating reactors. While I regard these numbers as approximations with wide uncertainties, the calculated numbers do not lend themselves to a conclusion that severe accidents are remote and speculative. We have had one such accident (Three Mile Island Unit 2) in about 2400 reactor years of commercial light water reactor operation in this country. While NRC has certainly improved its regulatory framework since then and industry by almost every measure has improved its safety performance since then, we can hardly claim to have eliminated the risk. We take the small risk of such an accident very seriously and both we and industry strive to prevent it. Our best chance of preventing another severe accident in this country is never to regard such an accident as an "incredible" event. When regulators and their regulated industry begin to believe accidents are incredible, history teaches that they become more likely.

Perhaps one day we will have nuclear reactor designs so safe that severe accidents will be remote and speculative and their consequences nihil, but that is not the case we have today in renewing the licenses of the current generation of reactors.



NUCLEAR REGULATORY COMMISSION

10 CFR Part 51.

[Docket No. PRM 51-7]

Nuclear Energy Institute

Denial of Petition for Rulemaking

AGENCY: Nuclear Regulatory Commission

ACTION: Denial of petition for rulemaking

SUMMARY: The Nuclear Regulatory Commission (NRC) is denying a petition for rulemaking submitted by the Nuclear Energy Institute (NEI) (PRM 51-7). The petitioner requested that the NRC amend its regulations to delete the requirement to consider Severe Accident Mitigation Alternatives (SAMAs) as part of the environmental review to support license renewal decisions. The NRC is denying the petition because the NRC must continue to consider SAMAs for issuance of a new or renewed operating license for a power reactor in order to meet its responsibilities under the National Environmental Policy Act (NEPA), notwithstanding the legal arguments presented in the petition. However, the NRC staff will continue to work with stakeholders to determine if efficiencies in the conduct of SAMA analyses for environmental reviews can be realized.

ADDRESSES: Copies of the petition for rulemaking, the public comments received, and the NRC's letter of denial to the petitioner are available for public inspection or copying for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first

floor), Rockville, Maryland. These documents are also available at the NRC's rulemaking website at <http://ruleforum.llnl.gov>

FOR FURTHER INFORMATION CONTACT: Donald P. Cleary, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-3903, email [dpc@nrc.gov](mailto:dpc@nrc.gov).

#### SUPPLEMENTARY INFORMATION:

##### Background

On July 14, 1999, the NRC received a petition for rulemaking submitted by the NEI, by letter dated July 13, 1999. On September 2, 1999 (64 FR 48117), the NRC published a notice of receipt of the petition (PRM-51-7). The petitioner requested that the NRC amend its regulations to delete the requirement for the NRC to evaluate Severe Accident Mitigation Alternatives (SAMAs) as part of its National Environmental Policy Act (NEPA) review associated with license renewal. The petitioner requests that the NRC take this action to achieve consistency in the scope of its regulatory requirements for environmental protection under NEPA, 10 CFR Part 51, and its technical requirements for license renewal under the Atomic Energy Act, 10 CFR Part 54.

The technical requirements for renewal of operating licenses are specified in 10 CFR Part 54 (60 FR 22461; May 8, 1995). This regulation focuses the license renewal review on certain types of systems, structures, and components that the NRC has determined require evaluation to ensure that the effects of aging will be adequately managed in the period of extended operation. This regulation is based on two regulatory principles. The first principle of

license renewal is that, with the possible exception of the detrimental effects of aging on the functionality of certain plant systems, structures, and components in the period of extended operation and possibly a few other issues related to safety only during extended operation, the ongoing regulatory process is adequate to ensure that the licensing bases of all currently operating plants provide and maintain an acceptable level of safety. The second principle of license renewal is that the plant-specific licensing basis must be maintained during the renewal term in the same manner and to the same extent as during the original licensing term. This principle is attained, in part, through a program of age-related degradation management for systems, structures, and components that are within the scope of license renewal. There is no requirement in 10 CFR Part 54 for analysis of SAMAs.

The NRC's regulations implementing NEPA appear in 10 CFR Part 51. The regulations contain specific provisions related to the requirements for the environmental review of applications to renew the operating licenses of nuclear power plants. See, for example, 10 CFR 51.53(c) and Subpart A, Appendix B. The regulations were developed to improve the efficiency of the process of environmental review for applicants seeking to renew a nuclear power plant operating license for up to an additional 20 years. The regulations are based on generic analyses reported in NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants" (May 1996) and in part on NUREG-1437, Vol. 1, Addendum 1, ~~"Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Main Report Section 6.3—Transportation," Table 9.1 "Summary of findings on NEPA issues for license renewal of nuclear power plant," Final Report~~<sup>2</sup> (August 1999). Those environmental issues for which the NRC made generic findings that may be adopted in individual plant license renewal reviews are defined as Category 1 issues in the rule. Those environmental issues that require further site-specific review are defined as Category 2 issues in the rule. The regulations

also provide for the consideration of "new and significant information" that might change a previous finding or introduce issues not previously reviewed and codified in the regulations.

With respect to the issue of environmental effects of severe accidents from license renewal, the NRC found that the probability weighted consequences are small. Specifically, the regulations state in Table B-1: "The probability-weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, and societal and economic impacts from severe accidents are small for all plants." Accordingly, the impacts of severe accidents are encoded in the rule and are not open for review in individual license renewal actions. However, one of the criteria for a Category 1 finding is, as stated in footnote 2 of Table B-1, Part 51, "Mitigation of adverse impacts associated with the issue have been considered in the analysis, and it has been determined that additional plant-specific mitigation measures are likely not to be sufficiently beneficial to warrant implementation." At the time the final rule was promulgated in 1996, the NRC discussed the ongoing regulatory programs focused on individual plant vulnerabilities to severe accidents and cost-beneficial improvements for reducing severe accident frequency or consequences. For each plant, an individual plant examination (IPE) to look for plant vulnerabilities to internally initiated events and a separate IPE for externally initiated events (IPEEE) was performed (61 FR 28467; June 5, 1996). The NRC believed that it would be premature to reach a generic conclusion regarding severe accident mitigation alternatives before completing these programs. Therefore, even though the Commission has reached a generic conclusion on the magnitude of severe accident impacts, the issue is nevertheless designated as a Category 2 issue because of the unresolved questions regarding mitigation, and applicants for license renewal are subject to the following requirement at 10 CFR 51.53(c)(3)(ii)(L): "If the staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or in an environmental assessment, a consideration of alternatives to mitigate severe accidents

must be provided." The NRC stated, "...that upon completion of its IPE/IPEEE program, it may review the issue of severe accident mitigation for license renewal and consider, by separate rulemaking, reclassifying severe accidents as a Category 1 issue" (61 FR 28481; June 5, 1996).

### The Petition

The petition was submitted by the Nuclear Energy Institute (NEI) by letter dated July 13, 1999. Its receipt was noticed in the Federal Register on September 2, 1999 (64 FR 48117), with a full description of its content. The petitioner requested the NRC "... to delete 10 CFR 51.53(c)(3)(ii)(L) and, thereby, eliminate the requirement for NRC to evaluate SAMAs as part of the NEPA review associated with license renewal." The rulemaking would include conforming changes to 10 CFR Part 51, Appendix B and NUREG-1437.

The petitioner requests elimination of the requirement for SAMA reviews in 10 CFR Part 51 on the belief that the requirement conflicts with the technical requirements for license renewal in 10 CFR Part 54. The petitioner argues that actions to evaluate and address SAMAs are part of each licensee's current licensing basis and that 10 CFR Part 54 is designed to separate matters related to maintaining the current licensing basis from those considered in a license renewal review. The petitioner's argument, briefly stated, is as follows. The petition makes reference to the two principles of license renewal, discussed in the Background section above. The first principle focuses the license renewal review on age-related degradation of plant systems, structures, and components. The second principle is continuation of the current licensing basis during the renewal term, in part, through a program of age-related degradation management of systems, structures, and components that are important to license renewal. The petitioner notes that 10 CFR 54.39, "Matters not subject to a renewal review," specifically provides that deviations from the current licensing basis identified in the integrated plant

assessment performed for license renewal, will be corrected under the terms of the current license and are not within the scope of the license renewal review. The petitioner then states that actions to evaluate and address SAMAs are part of each licensee's current licensing basis, citing the IPE and IPEEE program to identify and evaluate plant-specific severe accident vulnerabilities and ways to mitigate those vulnerabilities.

Concluding that SAMAs are outside of the scope of a 10 CFR Part 54 license renewal review, the petitioner then presents legal arguments for deleting SAMAs from the NEPA review. The essence of these arguments is that 10 CFR Part 54 defines the scope of the proposed Federal action, and that Federal action establishes the scope of environmental consequences of license renewal that are to be reviewed under NEPA. Citing several court cases, the petitioner asserts that this approach is consistent with the "rule of reason" that generally governs environmental impact reviews under NEPA. The petitioner then states, "Thus, under the 'rule of reason,' the impacts appropriately considered under NEPA would be those that reasonably flow from the Part 54 decision-making." Next, the petitioner cites two cases to support the position that there should be no consideration of SAMAs for license renewal. In City of Aurora v. Hunt, the court ruled that a new procedure to use a specific airport runway in particular weather conditions involved "...no significant safety impact...to trigger further assessment or inquiry under NEPA." 749 F.2d 1457, 1468 n. 8 (10<sup>th</sup> Cir. 1984) overruled on other grounds by Village of Los Ranchos de Albuquerque v. Marsh, 956 F.2d 970 (10<sup>th</sup> Cir. 1992). In the second court case, Upper Snake River Chapter of Trout Unlimited v. Hodel, the court ruled that the Department of Interior did not have to prepare an environmental impact statement (EIS) to adjust the flow of water from a dam to accommodate drought conditions where the range of flow change was within the contemplation of the original project. 921 F.2d 232, 235 (9<sup>th</sup> Cir. 1990). The petitioner concludes from these decisions that a NEPA review of SAMAs is not required in the license renewal review because, (1) the current licensing basis is

in the NRC's safety review during the licensing process. In the case of license renewal, it is the Commission's responsibility under NEPA to consider all environmental impacts stemming from its decision to allow the continued operation of the entire plant for an additional 20 years. The fact that the NRC has determined that it is not necessary to consider a specific matter in conducting its safety review under Part 54 does not excuse it from considering the impact in meeting its NEPA obligations. The Commission does

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~~We do not believe that the various cases offered by the petitioner provide convincing support for the elimination of the review of SAMAs. It would appear that the logical extension of many of the petitioner's arguments go far beyond the mere elimination of SAMAs consideration from license renewal reviews. Indeed, to the extent that license renewal involves a continuation of impacts already experienced at the site under the current operating license, the arguments made by the petitioner would appear to call for the elimination of almost the entire environmental review of impacts from operation during the license renewal term, a position clearly at odds with the Commission's approach to the matter and also, as discussed below, inconsistent with case law related to relicensing.~~

The Commission does

We do not dispute that a line of cases exists under NEPA law which excuses agencies from preparing EISs (or considering certain environmental impacts) where the Federal action does not change existing environmental conditions. See, for example, State of North Carolina v. Federal Aviation Administration, 957 F.2d 1125 (4<sup>th</sup> Cir. 1992); Cronin v. Department of Agriculture, 919 F.2d 439 (7<sup>th</sup> Cir. 1990). In most of these cases, the Federal action taken does not itself create any additional impacts to activities that are ongoing and will continue with or without the Federal action. None of these cases appears to provide firm support for the petitioner's argument that the NRC can ignore the impacts of its actions in the context of license renewal. In fact, at least one circuit court squarely addressed the issue of relicensing and concluded that there is the need to consider environmental impacts in that context.

In Confederated Tribes and Bands of the Yakima Indian Nation v. Federal Energy Regulatory Commission, 746 F.2d 466 (9<sup>th</sup> Cir. 1984), the Ninth Circuit Court of Appeals considered whether the Federal Energy Regulatory Commission (FERC) was required to prepare an EIS for its relicensing decision for the Rock Island Dam. In response to the FERC's argument that there had been "no change in the status quo" and thus no EIS was necessary, the court found:

Relicensing ... is more akin to an irreversible and irretrievable commitment of a public resource than a mere continuation of the status quo. [Citation omitted] Simply because the same resource had been committed in the past does not make relicensing a phase in a continuous activity. Relicensing involves a new commitment of the resource, which in this case lasts for a forty-year period.<sup>2</sup>

The court's statements here are consistent with NRC's position and its practice in promulgating and implementing the license renewal rule. The cases offered in support of the petitioner's arguments offer no compelling reasons to alter this approach.

In City of Aurora v. Hunt,<sup>3</sup> the Federal Aviation Administration (FAA), through a rulemaking, approved a new approach procedure for the Stapleton airport in order to reduce delays caused by the use of the existing procedure during periods of low visibility. The City of Aurora challenged the rule claiming, among other things, that the FAA failed to discuss the safety risks of the new procedure in its environmental assessment. In ruling against the City's claim, the Court pointed out that the FAA was required by law to issue the new procedure only if it did not involve a change in safety risk. The FAA considered and responded to a vast number of safety concerns as part of the rulemaking process. Accordingly, the Court found that the agency's approval of the procedure, in itself, was adequate to fulfill the agency's responsibility under NEPA. In a footnote, the Court explained that "[w]hile an agency may be required to

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<sup>2</sup>746 F.2d 466 at 476-477.

<sup>3</sup>749 F.2d 1457 (10<sup>th</sup> Cir. 1984).

not warranted. In other words, the NRC would change the designation of the severe accident issue to "Category 1" for license renewal in Appendix B of 10 CFR Part 51. Secondly, as discussed in Section 3 of this notice, the Commission could eliminate consideration of SAMAs for license renewal based on a finding that severe accidents, in the context of plant operation during the license renewal term, are remote and speculative.

The Commission ~~does not~~ believe <sup>that insufficient</sup> the necessary information is available to conclude generically that a SAMA analysis is not warranted for individual plant license renewal reviews. In promulgating the license renewal rule in 1996, the Commission indicated that it "may review the issue of severe accident mitigation for license renewal and consider, by separate rulemaking, reclassifying severe accidents as a Category 1 issue" (61 FR 66537; 66540; December 18, 1996). In early 1999, in anticipation of completion of the IPE and IPEEE programs, the NRC staff began considering the actions needed to fulfill the commitment made in the Federal Register notice. The IPE program has been completed and the findings of the program are summarized in NUREG-1560, "Individual Plant Examination Program: Perspective on Reactor Safety and Plant Performance," December 1997. The IPEEE program is nearing completion. The current target for completing the reviews of the balance of the individual submittals is January 2001. A draft insights report will be issued for public comment in April 2001 and the final report is scheduled to be completed in October 2001. double way

Over the past year, the staff has discussed the scope of the analysis that would be required to reach generic technical conclusions supporting a rulemaking to reclassify severe accidents as a Category 1 issue. While the information developed in the IPE/IPEEE program provides a valuable starting point, considerable staff and contractor effort would be required to extend the conclusions resulting from the IPE/IPEEE reviews to draw generic conclusions regarding SAMAs. This would include the need to evaluate changes in plant design and procedures since the IPEs/IPEEEs were completed, incorporate changes in the state of with whom?  
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knowledge regarding certain severe accident issues, and to extend the IPE/IPEEE analyses to include offsite consequences. In addition, both benefit and cost considerations of potential plant improvements would need to be developed. Further, there is uncertainty whether, at the conclusion of this effort, the staff would be successful in developing a sufficient technical basis to reclassify severe accidents as a Category 1 issue. Given the resources that would be required and the uncertainty in achieving a successful outcome, the staff does not believe it would be cost beneficial to pursue rulemaking at this time.

In September 2000, the staff issued Supplement 1 to Regulatory Guide 4.2, "Preparation of Supplemental Environmental Reports for Applications to Renew Nuclear Power Plant Operating Licenses," which includes guidance on information and analysis content on SAMAs for ERs submitted as part of license renewal applications. Its use is intended to ensure the completeness of the information provided, to assist the NRC staff and others in locating the information, and to shorten the review process. The staff will continue to work with stakeholders to determine if additional efficiencies in the conduct of SAMA analyses for environmental reviews can be realized. Furthermore, if new information becomes available that indicates it is feasible to reclassify SAMAs to Category 1, the staff will notify the Commission and provide a recommendation as to a course of action.

Accordingly, the Commission believes that there is an inadequate basis for a rulemaking to change severe accidents from a Category 2 to Category 1 issue at this time. Applicants should continue to refer to the guidance set out for SAMA analyses in the Statements of Consideration for the license renewal rule (61 FR 28467, 28480-28482; June 5, 1996). The NRC staff will continue to work with stakeholders to discuss the process by which SAMA reviews are done and to determine if efficiencies are possible while ensuring compliance with NRC's NEPA responsibilities to consider the environmental impacts of its licensing decisions.

### 3. Consideration of Remote and Speculative Impacts.

The Commission agrees with the petitioner that there is some support in the case law for the proposition that NEPA does not require the consideration of remote and speculative risks.<sup>5</sup> The court in the Limerick proceeding rejected the NRC's argument that severe accidents were remote and speculative because the court could find no basis for the conclusion in the NRC record. Id. at 739-741. ~~At this time,~~ The Commission is not prepared to reach the conclusion that the risks of all severe accidents in the context of license renewal are so unlikely as to warrant their elimination from consideration in our NEPA reviews. Even though there is a low probability of a severe accident, the NRC has invested considerable resources toward understanding potential severe accident sequences and alternatives for further reducing the probability of and mitigating the consequences of severe accidents, but has not yet established an agency record that severe accidents may be eliminated from NRC's NEPA reviews. In reviewing licensing actions outside of the license renewal context, it may be possible for the NRC to conclude that certain severe accident scenarios are remote and speculative and do not warrant detailed consideration for the purposes of the NEPA review for that particular NRC action. However, for the purposes of consideration of severe accidents in the context of license renewal NEPA reviews, the NRC staff has not developed the necessary basis for concluding that such occurrences are remote and speculative, and thus inappropriate for NRC review under NEPA.

In its comments, the petitioner cited two cases which, in its view, demonstrate that NEPA's requirements are satisfied where potential impacts to the environment are remote and difficult to quantify and ongoing regulatory safeguards are in place to protect against potential

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<sup>5</sup>See, e.g., Limerick Ecology Action v. NRC, 869 F.2d at 739; San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1300-01 (D.C.Cir. 1984).

risks of impacts into the future. Environmental Defense Fund v. Andrus, 619 F.2d 1368 (10<sup>th</sup> Cir. 1980) *reh'g en banc denied*; and Citizens for Environmental Quality v. Lyng, 731 F. Supp. 970 (D. Colo. 1989). While these cases may provide more support for the general proposition that remote and speculative impacts need not be considered under NEPA, they do not displace the Commission's responsibility to make the threshold determination based on the NRC record that severe accidents are remote and speculative for the purpose of license renewal reviews. As discussed, the Commission is unable to reach that conclusion ~~at this time. If new information in the future provides a firm basis for concluding that severe accidents are remote and speculative in this context, the Commission may revisit the issue.~~

For the reasons cited in this document, the Commission denies the petition.

Dated at Rockville, Maryland, this \_\_\_\_ day of \_\_\_\_, 2000

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook  
Secretary of the Commission

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER MERRIFIELD  
SUBJECT: **SECY-00-0210 - DENIAL OF PETITION (PRM 51-7) FOR  
RULEMAKING TO DELETE THE REQUIREMENT FROM 10  
CFR PART 51 TO CONSIDER SEVERE ACCIDENT  
MITIGATION ALTERNATIVES IN OPERATING LICENSE  
RENEWAL REVIEWS**

Approved  Disapproved  Abstain

Not Participating

COMMENTS: *No additional comments.*

  
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SIGNATURE

*12/26/00*  
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DATE

Entered on "STARS" Yes  No