



SECRETARY

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

April 16, 2012

COMMISSION VOTING RECORD

DECISION ITEM: SECY-12-0019

TITLE: DENIAL OF PETITION FOR RULEMAKING REQUESTING
AMENDMENTS TO 10 CFR PART 54 REGARDING
LICENSE RENEWAL APPLICATIONS SUBMITTED 20
YEARS BEFORE EXPIRATION OF THE OPERATING
LICENSE (PRM-54-6)

The Commission (with all Commissioners agreeing) approved the subject paper as recorded in the Staff Requirements Memorandum (SRM) of April 16, 2012.

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

A handwritten signature in black ink, appearing to read "Annette L. Vietti-Cook", written over a horizontal line.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Jaczko
Commissioner Svinicki
Commissioner Apostolakis
Commissioner Magwood
Commissioner Ostendorff
OGC
EDO
PDR

(SECY NOTE: THE SRM, COMMISSION VOTING RECORD, AND SECY PAPER TO BE RELEASED TO THE PUBLIC 5 WORKING DAYS AFTER DISPATCH OF THE LETTER TO THE PETITIONER.)

VOTING SUMMARY - SECY-12-0019

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. JACZKO	X				X	3/30/12
COMR. SVINICKI	X				X	4/10/12
COMR. APOSTOLAKIS	X					4/5/12
COMR. MAGWOOD	X					4/10/12
COMR. OSTENDORFF	X					3/23/12

(SECY NOTE: THE SRM, COMMISSION VOTING RECORD, AND SECY PAPER TO BE RELEASED TO THE PUBLIC 5 WORKING DAYS AFTER DISPATCH OF THE LETTER TO THE PETITIONER.)

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Chairman Gregory B. Jaczko

SUBJECT: SECY-12-0019 – DENIAL OF PETITION FOR
RULEMAKING REQUESTING AMENDMENTS TO 10
CFR PART 54 REGARDING LICENSE RENEWAL
APPLICATIONS SUBMITTED 20 YEARS BEFORE
EXPIRATION OF THE OPERATING LICENSE (PRM-54-
6)

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below X Attached _____ None _____

I approve the staff's recommendation to deny the petition. While the petition raises some interesting concerns (some of which I share), as the staff stated, many of these issues were vetted at the time of the initial rulemaking.



SIGNATURE

3/30/12

DATE

Entered on "STARS" Yes _____ No _____

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: COMMISSIONER SVINICKI
SUBJECT: SECY-12-0019 – DENIAL OF PETITION FOR
RULEMAKING REQUESTING AMENDMENTS TO 10
CFR PART 54 REGARDING LICENSE RENEWAL
APPLICATIONS SUBMITTED 20 YEARS BEFORE
EXPIRATION OF THE OPERATING LICENSE
(PRM-54-6)

Approved XX Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below XX Attached XX None _____

I approve publication of the *Federal Register* Notice, subject to the attached edits.



SIGNATURE

04/10/12

DATE

Entered on "STARS" Yes No _____

insert
spaced

C. Petition Statements and Comments Referencing the Seabrook Nuclear Generating Station, Unit 1 (Seabrook Unit 1), License Renewal Application

IV. Public Comments on the Petition

V. Determination of Petition

X
X
X

I. Background

The NRC received the petition on August 17, 2010, and assigned it Docket No. PRM-54-6. The NRC published a notice of receipt of the petition and request for public comment in the *Federal Register* (FR) on September 27, 2010 (75 FR 59158).

The petitioners stated that the NRC's current regulation in Title 10 of the *Code of Federal Regulations* (10 CFR) 54.17(c) is unduly non-conservative with respect to its effect on the accuracy and completeness of LRAs, public participation, changing environmental considerations, aging analysis and management, regulatory follow-through, National Environmental Policy Act (NEPA) compliance, and changing regulations. The petitioners stated that they seek to restore some margin of conservatism by halving the lead time on LRAs from 20 to 10 years.

The petitioners raised the following seven issues in support of their request that the NRC revise 10 CFR 54.17(c):

1. The NRC conducted the rulemaking for 10 CFR 54.17, "Filing of Application," more than 15 years ago, and it could not have foreseen changes with respect to economic and regulatory shifts that have led to an industry-wide shift of focus from decommissioning to power uprates and license renewals. Such changes have affected the dynamics of license renewal aging analysis and management.
2. The rulemaking for 10 CFR 54.17(c) proceeded without sufficient consideration of the hearing rights of affected persons.

3. Under 10 CFR 54.17(c), licensees and the NRC can press to untenable lengths of time the ability to predict the following:

- a. aging deterioration of systems;
- b. alternative energy sources that may be more available in the future; and
- c. various other factors related to plant security and the environment.

4. Failure rates for systems, structures, and components (SSCs) are nonlinear, so licensees are unable to accurately predict aging-related failures.

5. A 20-year timeframe exacerbates the NRC staff and licensees' difficulty in tracking license renewal commitments. X

6. Regulatory changes over a 20-year period, from application to onset of the period of extended operation, will result in grandfathered non-compliance issues.

7. The 20-year timeframe allowed by 10 CFR 54.17(c) conflicts with NEPA. This conflict results in environmental reviews of unduly limited scope and unreasonably limits potential alternatives.

Section II, "Modifying the 20-Year Application Timeframe," of this document describes in detail each of the seven issues. Section II also documents the NRC's responses to these issues.

The petitioners also requested that the NRC suspend all ongoing reviews of LRAs and that it apply the 10-year timeframe requirement to all ongoing and future LRA reviews. In addition, the petitioners and some public comment letters provide statements related to the license renewal application for Seabrook, Unit 1. Section III, "Ongoing and Future License Renewal Actions," of this document contains the NRC's responses to these requests and statements.

with renewed licenses

original license expiration," as most (43 of the 61) units ~~relicensed~~ at the date of the petition, filed their applications earlier than 10 years before the original license expiration. Nevertheless, neither statement contradicted the NRC's original basis for its consideration in the rule. X

Therefore, the arguments provided by the petitioners for this issue do not provide sufficient justification for the NRC to revise the rule. In particular, the petitioners did not present any new information that would contradict the Commission's previous considerations when it established the license renewal rule or demonstrate that sufficient reason exists to modify the current regulations.

Issue 2

The petitioners assert that, by renewing the license of a nuclear power station 20 years in advance of the licensed extended period of operation, the NRC removes, to the distance of a full generation, the opportunity for an adjudicatory hearing. They contend that a future generation of affected residents, visitors, and commercial interests would be unable or unprepared to speak for themselves. The petitioners further state that "10 CFR 54.17(c) introduces the question of whether the action proposed is obtaining the license or entering into an extended period of operation 20 years hence." They argue that "the safety and environmental ramifications; the physical impact on affected persons begins 20 years away." They contend that this renders the permission so far removed in time from the implementation as to provide an intellectual disconnect or, in effect, void legal notice.

NRC Response to Issue 2

The petitioners point out that renewing an application up to 20 years in advance means that some future residents, visitors, and commercial interests that relocate near the plant during

environmentally benevolent alternative energy sources” may be more available in the future (e.g., photovoltaic solar and wind power) but cannot be credibly projected over 20 years. In addition, the petitioners raise the future uncertainty of the global threat of terrorism and its impact on security and the availability of offsite storage for spent fuel and low-level radioactive waste. The petitioners note that the prediction^{ed} failure rates for complex systems tend to increase exponentially with respect to the length of time until the prediction matures. X

NRC Response to Issue 3

Under Issue 3, the petitioners argue that the LRA fails to encompass the potential effects of a changing environment, and then raise several issues of concern stemming from the length of time allowed by 10 CFR 54.17(c). The examples range from aging degradation to environmental concerns to terrorism and security. The petitioners’ issues related to aging management are similar to those raised under Issue 4; therefore, the NRC will address this aspect of the petitioners’ concern in its response to that issue. Likewise, the petitioners’ environmental concerns as well as the broader concern of a changing environment are similar to the NEPA issues raised under Issue 7; the NRC will address the environmental questions in its response to that issue. This response to Issue 3 addresses the remaining questions related to future uncertainty related to acts of terrorism.

While security of the nuclear facilities the NRC regulates has always been a priority, the terrorist attack of September 11, 2001, brought heightened scrutiny and spurred more stringent physical security requirements. The NRC staff regularly enforces and inspects against these security requirements as part of its oversight role, regardless of a plant’s status with respect to license renewal. Moreover, acts of terrorism are not aging-related issues and are, therefore, outside the scope of license renewal hearings. Dominion Nuclear Connecticut, Inc. (Millstone X

adverse effects of aging. In other words, the intent of license renewal is to actively manage aging effects with aging management programs rather than just predicting future deterioration.

The bathtub curve analogy made by the petitioners would only apply to a scenario where component failures could occur if no aging management programs were used. The petitioners do not provide convincing evidence or analysis to show that the bathtub curve phenomenon actually exists at nuclear power plants. Where the petitioners cite Beaver Valley and Vermont Yankee as two examples, neither example conclusively demonstrated how component failures were linked to the presence of a bath-tub trend, other than the fact that both plants happened to be in the later segments of their respective licenses. Nuclear power plant licensees are required to maintain aging management programs as part of their CLB following the license renewal review, to ensure that the effects of aging are adequately managed such that SSC's are able to perform their intended functions over time. The aging management programs, which are evaluated by the NRC, provide reasonable assurance that the effects of aging will be managed under the renewed license.

The petition statements in Issue 4 do not provide new information that would contradict positions taken by the Commission when it established the license renewal rule or demonstrate that sufficient reason exists to modify the current regulations.

nor do they

X

Issue 5

The petitioners state that the current rule exacerbates the difficulty the NRC staff and licensees have in following license renewal commitments. They argue that LRAs are often approved with the proviso that certain commitments be made and fulfilled, generally before the period of extended operation begins. These commitments often include inspections, tests, and analyses, as well as the development of programs vital to safety and environmental protection.

reasonably foreseeable impacts and alternatives to issuing a renewed license for a period of up to 40 years. The petitioners did not provide any reasoning to dispute that the renewed license period of up to 40 years was consistent with the AEA, nor did the petition provide information to show that if the NRC, consistent with the AEA, issues a renewed license for up to 40 years, that the agency is therefore, unable to meet NEPA's twin aims. X

The petitioners also argue that the timing of LRAs affects the implementation of NEPA with regard to the consideration of alternatives. The NRC notes that the petitioners quote Council on Environmental Quality (CEQ) regulations in support of their arguments rather than NEPA, but neither the statute nor the CEQ regulations support their petition. The extent of the environmental review is not directly limited by the timing of the application submittal, nor does the staff limit its analysis to the information provided in the environmental report. However, the NRC does apply the rule of reason in conducting its environmental analysis under NEPA, which may limit the extent of the environmental analysis to only those environmental impacts and alternatives that are reasonably foreseeable. This means that, while the environmental review considers various impacts and alternatives, the NRC is not required to analyze every possible future or speculative development, particularly those that cannot be reasonably assessed to inform its decision making process. For example, the NRC analyzes alternative energy sources, but is not required under NEPA to consider speculative technological advances in alternative energy sources, which may or may not be available at the time of extended operation. The NRC must complete its NEPA review before it issues a renewed license in order to inform the agency's decision on license renewal, and the agency meets the twin aims of NEPA by analyzing those alternatives which are reasonably foreseeable at the time that the renewed license is issued. The petitioners did not provide information showing that the rule precludes the NRC from considering reasonable alternatives within the licensing action timeframe.

With respect to assessing the potential future environmental impacts associated with the issuance of a renewed license, the NRC complies with the statutory requirements of NEPA through its consideration of impacts in the generic and supplemental environmental impact statements (SEISs) for license renewal prepared in accordance with 10 CFR Part 51, Environmental protection regulations for domestic licensing and related regulatory functions. As part of this environmental review process, the NRC evaluates the environmental impacts associated with operating a plant for an additional 20 years. This evaluation includes generic determination in its Generic Environmental Impact Statement for License Renewal (GEIS) of issues such as the future storage of spent fuel for the period of extended operation (See 10 CFR Part 51, Subpart A, Table B-1). The environmental^a review also addresses concerns such as those cited by the petitioners in Issue 3 related to the changing environment (e.g., rise in ocean temperatures on species affected by a thermal discharge plume or cooling intake), in addressing environmental impacts and alternatives that are reasonably foreseeable for each site. Furthermore, the petitioners did not provide new information to demonstrate that the changing environment would have a significant impact to affect the NRC's environmental analysis. X

The petitioners also raised a concern in Issue 3 related to the potential change in status of threatened or endangered species over the renewed license period; such changes are accounted for in the NRC's ongoing consultations with other Federal agencies under the Endangered Species Act, which may result in imposing incidental uptake limits or monitoring for certain species, depending on the facility and its environment. To the extent that future developments or events may occur that require reinitiation of consultations, the NRC staff must consult with the relevant agency or agencies, regardless of whether the power plant has a renewed license.

generation of affected residents, visitors, and commercial interests would be unable or unprepared to speak for themselves.

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A commenter noted that, according to the petitioners' logic, with even a 5-year renewal application period, some people might be unable or unprepared to speak for themselves. The commenter also raised the point that the 20-year renewal application period provides a greater ability for people to decide not to relocate to the area near the plant. X

A commenter provided the following statements related to the hearings on LRAs. Parties in NRC contested licensing hearings have the opportunity to raise issues after the LRA is submitted and during the months immediately following the staff's completion of its licensing review and the issuance of the safety and environmental licensing documents. Because the licensing hearing focuses on the LRA itself, and not future generations, hearing issues are most effectively addressed while the LRA is before the agency. Contrary to the petitioners' assertion, there is no statutory, regulatory, or other rationale for delaying the hearing until the renewed license goes into effect. The NRC will address any safety issues relating to plant operation that arise after license renewal using the array of processes available from the Commission's regulations.

Two commenters noted that there is no fundamental right to participate in administrative adjudications. *Citizens Awareness Network, Inc. v. NRC*, 391 F.3d 338, 354 (1st. Cir. 2004). One commenter also stated that the NRC issues initial operating licenses for 40-year periods. The combination of a 20-year license renewal period with the 18 years (at most) that would remain on an initial license following the NRC's review of an LRA is less than the 40-year period for operating licenses that the NRC grants under 10 CFR Part 50 or 10 CFR Part 52, Licenses, certifications, and approvals for nuclear power plants. The petitioners' argument would mean that the NRC is incapable of providing a meaningful hearing opportunity on an initial operating

would be more effective after license issuance but before the beginning of the extended operating period.

The commenter provided an example in which a plant may receive a 38-year renewed license. ^A

The commenter calculated 38 years by adding the 20-year renewal application period to the 20-year extended operation period and subtracting 2 years for NRC staff review of the renewal application. The commenter argued that the initial licensing period of 40 years and the approximately 38-year period for renewal both represent an NRC licensing decision for which the effects of operation would be realized over approximately a 40-year period. The period of the renewed license may be up to 40 years, as provided in 10 CFR 54.31, Issuance of a renewed license. The commenter is correct that the petitioner does not recognize the similarity of the licensing periods of the two licensing actions and that the petition for rulemaking does not explain why the initial 40-year licensing period is appropriate while the renewal licensing period of up to 40 years would be inappropriate. The NRC agrees with the commenter's point that, similar to the AEA authorization to grant an initial license for 40 years, a 40-year renewal licensing period does not deprive future residents of a fundamental hearing right. Specifically, the petition does not provide any support to show why the AEA authorization for an initial 40-year operating license does not deprive potential future residents of a hearing right, but a license renewal period of up to 40 years does deprive potential future residents of a hearing right.

The comments related to Comment Category 2 do not provide a sufficient justification for the Commission to grant the petition for rulemaking.

Comment Category 3: The rule currently enables applications to avoid addressing changing environmental considerations.

that they could adequately manage those effects. A licensee's license renewal programs are detection and not prediction programs. ↗

X

9 The commenter concludes that this argument does not provide any grounds to reconsider the Commission's current regulations.

NRC Response

As part of the license renewal review, the NRC evaluates a licensee's aging management programs to ensure that each provides reasonable assurance that the licensee will adequately manage the effects of aging. The petitioners provide no support for the claim that aging management technology is inadequate. The NRC agrees that the comments made by two commenters are a correct description of the process of aging management and continuing regulatory oversight. Those SSCs within the scope of license renewal and that require aging management review have specific aging management programs designed to manage the effects of aging. Any SSCs outside the scope of license renewal but subject to 10 CFR Part 50 are subject to regulatory oversight. Licensees are required to maintain their aging management programs until the end of their license. As stated above, the NRC evaluates the aging management programs to determine if they provide reasonable assurance that the licensee will manage the effects of aging.

Comment 4.2

The petitioners state that filing for license renewal at midterm of the current license finds the licensee at a time in SSC service life when, in industry experience, few failures are observed and, generally, those that are observed are episodic or anomalous in nature and thus cannot be readily plotted as a trend for prediction purposes. The petition argues that the time of an

"the licensee must continue to ensure that the plant is being operated safely and in conformance with its licensing basis." ↗

As such, the NRC expects that the licensees' aging management programs would continue to be informed over time by ongoing operating experience to address new issues. In its 1991 Statement of Consideration, the Commission also noted that the NRC's "regulatory oversight activities will also assess any new information on age-related degradation or plant operation issues and take whatever regulatory action is appropriate for ensuring the protection of the public health and safety" (56 FR 64963; December 13, 1991).

Comment 4.3

The petitioners state that it is appropriate, from a regulatory audit standpoint, to wait until applicable failure rate and observed aging phenomena data are in hand before attempting time-limited aging analysis or aging management planning less than 10, not less than 20 years in advance of operating license expiration. A commenter stated that, to the extent the petition claims that 20 years of plant operating experience is insufficient to provide a valid basis for renewal applications, the Commission has previously addressed and dismissed that argument in its 1991 final rule.

NRC Response

The NRC addressed this argument in the Statements of Consideration for the 1991 final rule. As the Commission stated, a minimum of 20 years provides a licensee with substantial amounts of information and would disclose any plant-specific concerns with regard to age-related degradation. A nuclear power plant will undergo a significant number of fuel cycles over 20 years, and plant and utility personnel will have a substantial number of hours of operational experience with every SSC (56 FR 64963; December 13, 1991). The petitioners

have not provided any new insights or analyses that would cause the Commission to change the rule.

The comments related to Comment Category 4 do not provide a sufficient justification for the NRC to revise the rule.

Comment Category 5: The current rule exacerbates the NRC staff^s and licensee's difficulty in following license renewal commitments. X

Comment 5.1

The petition states that regulatory experience shows that NRC staff turnover, as well as changes in oversight and licensee staff and ownership, will at once complicate and place increased emphasis on the proper handoff of unfulfilled licensee commitments. A commenter stated that the petition does not account for the fact that 10 CFR Part 54 requires license renewal commitments to be reflected in the Updated Final Safety Analysis Report (UFSAR). Also, the commitments are publicly available on the facility's NRC docket. The commenter noted that the petition failed to acknowledge that the NRC's established regulatory oversight process for nuclear power plants (and other NRC licensees) has been functioning effectively for decades, despite staff turnover and changes in oversight and licensee staff and facility ownership. The commenter continued that certain NRC regulations and guidance provide various processes for ensuring that the licensee satisfies such commitments. Such processes include, but are not limited to, program development, testing, formalized commitment processes, and NRC inspections, all of which require significant recordkeeping of commitment status. The commenter also stated that, during the term of the renewed license, the licensee continues to be subject to all NRC regulations in 10 CFR Parts 2, 19, 20, 21, 26, 30, 40, 50, 51,

1) issues relevant to both current operation and extended operation during the license renewal period should be addressed when they arise, not postponed until a license renewal decision (56 FR 64946; December 13, 1991) and 2) duplicating the Commission's ongoing regulatory reviews in a license renewal proceeding would waste NRC resources, which are better focused on aging management concerns.

Another commenter stated that the Commission has explained that it expects licensees and license renewal applicants to adjust their aging management programs to reflect lessons learned in the future through individual and industry-wide experiences. The Commission has described the license renewal program as a living program that continues to evolve. If new insights or changes emerge over time, the NRC staff will require, as appropriate, any modification^s to SSCs^{are} that is necessary to ensure adequate protection of public health and safety or to bring the facility into compliance with a license or the rules and orders of the Commission. The commenter further stated that the NRC will act to ensure adequate protection, regardless of when an LRA is submitted. The Commission also considered this same argument nearly 20 years ago in its 1991 final rule. X

NRC Response

The above comments largely summarize the Commission's position previously stated in relation to the promulgation of the initial rule. The NRC generally agrees with the comment that it considered the issue in the prior rulemaking for this regulation. The NRC also agrees with the comment regarding expectations that licensee's aging management programs should be informed, and enhanced when necessary, based on the ongoing review of both plant-specific and industry operating experience.

The comments related to Comment Category 6 do not provide a justification for the NRC to revise the rule.

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER APOSTOLAKIS

SUBJECT: SECY-12-0019 – DENIAL OF PETITION FOR
RULEMAKING REQUESTING AMENDMENTS TO 10
CFR PART 54 REGARDING LICENSE RENEWAL
APPLICATIONS SUBMITTED 20 YEARS BEFORE
EXPIRATION OF THE OPERATING LICENSE (PRM-54-
6)

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below _____ Attached _____ None X



SIGNATURE

4/5/12

DATE

Entered on "STARS" Yes x No _____

NOTATION VOTE

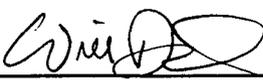
RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: COMMISSIONER MAGWOOD
SUBJECT: SECY-12-0019 – DENIAL OF PETITION FOR
RULEMAKING REQUESTING AMENDMENTS TO 10
CFR PART 54 REGARDING LICENSE RENEWAL
APPLICATIONS SUBMITTED 20 YEARS BEFORE
EXPIRATION OF THE OPERATING LICENSE (PRM-54-
6)

Approved Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: Below ___ Attached ___ None



SIGNATURE

10 April 2012

DATE

Entered on "STARS" Yes No _____

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: COMMISSIONER OSTENDORFF
SUBJECT: SECY-12-0019 – DENIAL OF PETITION FOR
RULEMAKING REQUESTING AMENDMENTS TO 10
CFR PART 54 REGARDING LICENSE RENEWAL
APPLICATIONS SUBMITTED 20 YEARS BEFORE
EXPIRATION OF THE OPERATING LICENSE (PRM-54-
6)

Approved X Disapproved Abstain

Not Participating

COMMENTS: Below Attached None X

W. Ostendorff
SIGNATURE

3/23/12
DATE

Entered on "STARS" Yes X No