

RULEMAKING ISSUE NEGATIVE CONSENT

August 17, 2001

SECY-01-0157

FOR: The Commissioners
FROM: William D. Travers
Executive Director for Operations
SUBJECT: LICENSE RENEWAL RULEMAKING

PURPOSE:

To inform the Commission that the staff recommends that the current license renewal rule (10 CFR Part 54), "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," need not be changed to achieve the benefits of the improved renewal guidance and generic aging lessons learned.

BACKGROUND:

By staff requirements memorandum (SRM) dated August 28, 1999, in response to SECY-99-148, "Credit for Existing Programs for License Renewal," the Commission directed the staff to "prepare a detailed analysis and provide recommendations to the Commission on whether it would be appropriate to resolve generic technical issues, including any credit for existing programs, by rulemaking." SECY-99-148 discussed options and provided a staff recommendation to address the Nuclear Energy Institute (NEI) comment on credit for existing programs for license renewal. The Commission approved the staff recommendation and directed the staff to develop improved guidance documents to focus the staff's review on areas where existing programs should be augmented. On April 26, 2001, the staff forwarded the completed guidance documents to the Commission in SECY-01-0074, "Approval To Publish Generic License Renewal Guidance Documents." In an SRM dated July 2, 2001, in response to SECY-01-0074, the Commission approved the issuance of these guidance documents.

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DISCUSSION:

In assessing the appropriateness of resolving generic technical issues, including credit for existing programs, by rulemaking, the staff considered stakeholder comments and experience gained in the initial application reviews. Written comments were received from the Union of Concerned Scientists (UCS) and NEI on whether the license renewal rule should be revised (Enclosures 1 and 2). In addition, the Advisory Committee on Reactor Safeguards (ACRS) previously provided a comment on enhancing the license renewal process when it recommended the approval of the improved license renewal guidance documents, which the staff also considered as a comment on the rule (Enclosure 3). These comments were discussed at a June 28, 2001, public meeting to solicit stakeholders' comments on the need for rulemaking. The following evaluation supports the staff's conclusion that rulemaking is not necessary at this time.

EVALUATION:

Having successfully issued three renewed licenses, the staff believes that the license renewal process is sufficiently clear, stable, and predictable. The reviews have been completed on schedule. Resource levels have started to decline as the staff and industry become more familiar with the application of the rule. Under the current renewal rule, the staff has flexibility to resolve aging management issues with an applicant and the applicant has flexibility to modify existing programs to take advantage of technological advances and additional lessons. The improved license renewal guidance documents, which focus the staff review on areas where existing programs should be augmented, address NEI's comment on crediting existing programs. Further improvement of the license renewal process can be achieved by enhancing and clarifying the license renewal guidance documents based on future lessons.

In a letter dated April 13, 2001, the ACRS commented that the staff should encourage applicants to include the results of the scoping process in their applications. This will facilitate the review process by making license renewal applications more understandable. The current rule only requires the applicant to describe and justify a method for license renewal scoping and provide the resulting list of structures and components subject to an aging management review in the license renewal application.

The ACRS believes it is important to categorize the structures and components by system to ascertain which system, structures, and components (SSCs) are within the scope of license renewal. The staff agrees with the ACRS. From the information gathered and experience gained from the review of applications to date, the staff found that scoping results usually have been included voluntarily in renewal applications. This voluntary information provides sufficient detail to improve the transparency of the scoping process. The improved license renewal guidance documents, including the staff-endorsed NEI license renewal guidance document (NEI 95-10, Revision 3), indicate that an applicant should provide scoping information. The staff will continue to work with industry to revise the guidance documents to further clarify that scoping results should be provided voluntarily to facilitate staff review and improve the public's access to information. In a letter dated July 20, 2001 (Enclosure 4), the ACRS advises that the rule is effective and efficient and does not need to be revised at this time.

UCS commented in a letter dated June 26, 2001, that the license renewal rule should be augmented to (1) subject the gaseous and liquid radioactive waste systems to an aging management review, (2) provide explicit criteria defining acceptable minimum standards for

aging management programs, and (3) deal with the assumptions of requiring one-time inspections.

Because UCS also submitted a petition on May 3, 2000, for rulemaking to include radioactive waste systems in the scope of renewal, the staff is addressing this comment separately in accordance with the petition process.

UCS cited eight unplanned reactor shutdowns since January 1, 2000, due to equipment failures caused by aging. UCS concludes that these failures indicate that the aging management programs may not be achieving the expectations. The staff found that only one case of operating experience cited by UCS, the steam generator tube failure at Indian Point Unit 2, was caused by the failure of a passive component. The other shutdowns were attributed to the failure of active components, such as transformers, solenoid valves, and circuit breakers. To the extent that these component failures involved licensee performance issues during plant operation, they are subject to the current inspection program (including compliance with the maintenance rule and corrective action program requirements) and, if warranted, enforcement process. As such, these active components are not subject to the license renewal requirements. The improved license renewal guidance documents attempted to clarify how the evaluation of aging management programs should be based on 10 specific program attributes. The staff agrees with UCS that it is important to public confidence that the distinction between aging management for active and passive components, as well as the basis for applying the 10 program attributes, needs to be clearly understood. The staff intends to use this goal in developing future improvements to the renewal guidance.

UCS commented that the license renewal rule or the associated guidance should deal more explicitly with the results of the one-time inspections. Because the current regulatory process continues in the period of extended operation, the staff believes that if the one-time inspections reveal aging degradation, the licensee's quality assurance process, in accordance with Appendix B to 10 CFR Part 50, requires the appropriate corrective actions which may include additional aging management activities. Should the staff consider changing aging management programs to which licensees have previously committed, the 10 CFR 50.109 backfit procedure cited in the UCS comment would be the appropriate regulatory process to evaluate the need for changes. The staff agrees that it is important to public confidence to clearly explain the role of one-time inspections and the relevance of the regulatory process to provide future improvements in aging management programs. The staff intends to use this goal in developing future improvements to the renewal guidance.

NEI commented that the industry does not believe rulemaking is necessary at this time. In a letter dated June 4, 2001, NEI stated that the current license renewal process is reasonably stable and predictable. NEI expects the renewal process to be even more efficient once application preparations begin to take advantage of the improved license renewal guidance documents and the lessons learned from the demonstration project. In addition, NEI commented that it may be appropriate to update the improved license renewal guidance documents. Based on experience with reviewing license renewal applications, the staff concurs with NEI's comment. The staff also notes that issues related to risk-informed changes to the scope of license renewal will be addressed under the risk-informed rulemaking, separate from this recommendation.

CONCLUSION:

Having successfully issued three renewed licenses, the staff believes that the license renewal process is sufficiently clear, stable, and predictable. Under the current rule, safety will continue

to be maintained. Revising the guidance documents to address the constructive suggestions provided by our stakeholders will make the license renewal process more efficient and effective. Clearly articulating staff expectations will help reduce unnecessary regulatory burden.

The staff also considered whether to revise the rule to codify aging management programs as evaluated in the GALL report. Codifying the programs could improve the predictability and efficiency of the process, but also reduces the flexibility in resolving plant-specific aging issues and incorporating future lessons. As the Commission stated in its August 27, 1999, SRM, these guidance documents are living documents. The staff will periodically update the license renewal guidance documents to capture future lessons learned.

RESOURCES:

There are no financial implications because the staff has budgeted adequate resources for license renewal application reviews and the periodic update of the improved license renewal guidance documents.

COORDINATION:

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

RECOMMENDATION:

That the Commission not pursue a rule change to 10 CFR Part 54 at this time. Staff requests action within 10 days. Action will not be taken until the SRM is received. We consider this action to be within the delegated authority of the Director of NRR.

/RA/

William D. Travers
Executive Director
for Operations

Enclosures:

1. Letter from UCS dated June 26, 2001
2. Letter from NEI dated June 4, 2001
3. Letter from ACRS dated April 13, 2001
4. Letter from ACRS dated July 20, 2001



Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

June 26, 2001

Mr. Christopher I. Grimes, Chief
License Renewal and Standardization Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555-0001
Earth

Dear Mr. Grimes:

Thank you for arranging for the Union of Concerned Scientists to have a seat at the table during the license renewal meeting scheduled for Thursday, June 28, 2001. Unfortunately, I will not be able to attend this meeting due to a matter that just recently developed. I had prepared three topics that I planned to cover during the meeting. Those topics are:

1. Gaseous and liquid radwaste systems: In May 2000, UCS submitted a petition for rulemaking seeking to revise the scope of the license renewal rule to cover those portions of the gaseous and liquid radwaste systems whose failure could potentially cause excessive releases of radioactivity to the environment. The justification that accompanied our petition provided some examples of credible equipment failures. We continue to believe that the rule needs to explicitly address these vulnerabilities.
2. Adequacy of aging management programs: During the session on license renewal that you chaired at the 2001 Regulatory Information Conference, I presented data on eight unplanned reactor shutdowns since January 1, 2000, due to equipment failures caused by aging. That list has been amended by an additional shutdown. Given that the primary purpose of aging management programs is to monitor the condition of important equipment and structures so as to effect repairs and replacements before failures occur, these reactor shutdowns indicate that the programs may not be achieving the expectations. We think that the data suggest that the license renewal rule, or the associated regulatory guidance, needs to be made more explicit with respect to the criteria defining acceptable minimum standards for aging management programs.
3. One-time inspections: At the workshop last fall and the subsequent Commission briefing, UCS conveyed a concern about one-time inspections. Today, the NRC grants license renewal applications predicated on the assumption that the one-time inspections will confirm negligible degradation. But what if these 'confirmatory' inspections reveal problems when the inspections are finally conducted years later? The licenses will have already been renewed and the plant owners may cry "Backfit!" when the NRC requests reasonable efforts based on

NRC's Public

the newly acquired knowledge.¹ The license renewal rule, or its associated regulatory guidance, may need to be made more explicit with respect to the staff's authority in dealing with one-time inspection surprises.

Sincerely,

A handwritten signature in black ink that reads "David A. Lochbaum". The signature is written in a cursive, flowing style.

David Lochbaum
Nuclear Safety Engineer
Washington Office

¹ A representative of an industry group has already presented to the Commission his belief that the NRC must go through the backfit rigmarole before asking any plant owner follow voluntary initiatives.



NUCLEAR ENERGY INSTITUTE

Douglas J. Walters
SENIOR PROJECT MANAGER,
LICENSING
NUCLEAR GENERATION

June 4, 2001

Mr. Christopher I. Grimes
Chief, License Renewal and Standardization Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: License Renewal Rulemaking

PROJECT NUMBER: 690

Dear Mr. Grimes:

The Staff Requirements Memorandum responding to SECY 99-148, *Credit for Existing Programs for License Renewal*, included a directive to the staff to “prepare a detailed analysis and provide recommendations to the Commission on whether it would be appropriate to resolve generic technical issues, including any credit for existing programs by rulemaking.”

The industry does not believe rulemaking is necessary at this time. Two licensees have successfully exercised the process and received renewed operating licenses for five units. A third licensee is expected to receive a renewed license for a single unit by the end of June and a fourth licensee is scheduled to receive renewed licenses for two units early next year. We understand the renewal process and believe it is reasonably stable and predictable. We expect it to be even more efficient once we begin preparing applications that take advantage of the Generic Aging Lessons Learned (GALL) report and the License Renewal Standard Review Plan.

There are outstanding technical issues documented in your May 18, 2001, letter to NEI. We look forward to working with the staff on resolving those issues but do not anticipate the resolution will require codification or otherwise result in the need to amend the renewal rule. It may be appropriate to update the license renewal guidance documents and we are prepared to do so if necessary. While we have yet to exercise the GALL report in the preparation of an application, it appears to go a long way towards crediting existing programs. The GALL demonstration project is examining how that credit is provided and how generic it is. We are working with the staff on that project and expect to update the guidance documents based on lessons learned. We do not anticipate those lessons to result in the need to amend the regulations.

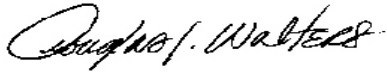
Mr. Christopher I. Grimes

June 4, 2001

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We understand that the NRC is planning to hold a public workshop, possibly in August to obtain public input on the need to change the license renewal rule. We will participate and look forward to hearing the other stakeholders' views on this topic.

Sincerely,

A handwritten signature in black ink that reads "Douglas J. Walters". The signature is written in a cursive style with a large initial 'D' and 'W'.

Douglas J. Walters

Enclosure

April 13, 2001

The Honorable Richard A. Meserve
Chairman
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555-0001

Dear Chairman Meserve:

SUBJECT: PROPOSED FINAL LICENSE RENEWAL GUIDANCE DOCUMENTS

During the 481st meeting of the Advisory Committee on Reactor Safeguards, April 5-7, 2001, we reviewed the proposed final versions of NUREG-1800, "Standard Review Plan for Review of License Renewal Applications;" NUREG-1801, "Generic Aging Lessons Learned (GALL) Report;" Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses;" and NEI 95-10, Revision 3, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule." These documents provide guidance for preparing and reviewing license renewal applications. Our Subcommittee on Plant License Renewal met on March 27, 2001, to review these documents. During our review, we had the benefit of discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI). We also had the benefit of the documents referenced.

Conclusions and Recommendations

1. The license renewal guidance documents should be approved for issuance.
2. The staff should encourage applicants to include the results of the scoping process in their applications. The availability of these results will facilitate the review process significantly and make license renewal applications more understandable.
3. The staff has agreed to update the GALL report periodically. The staff should also update the Standard Review Plan (SRP) and Regulatory Guide 1.188 to make them consistent with the updated GALL report.

Discussion

We reviewed earlier drafts of the license renewal guidance documents during our November 2-4, 2000 meeting and provided comments and recommendations in a report dated November 15, 2000. We concluded at that time that the draft documents described a consistent and understandable process to support the preparation and review of license renewal applications.

The current versions of the guidance documents include the resolution of comments provided by industry, the ACRS, and the public. The documents were revised to increase focus, eliminate insignificant aging effects, improve clarity, and to include changes resulting from the resolution of technical issues between the staff and the industry. The documents now provide closure for the great majority of aging management issues. The staff is continuing its dialogue with NEI and current applicants on a number of residual issues. This dialogue is likely to continue for some time as issues are closed and other issues are identified as a result of the lessons learned from reviewing future license renewal applications.

The development and staff review of previous license renewal applications would have been facilitated by the availability of a clearly defined baseline for regulatory acceptance that the guidance documents now provide. Given the significant number of applications being developed by licensees and reviewed by the staff, we agree with the staff and NEI that these documents should be approved. Changes resulting from the continuing dialogue between the staff and the industry can be incorporated into future updates. The staff has agreed to update the GALL report periodically. It should also update the SRP and Regulatory Guide 1.188 accordingly.

The License Renewal rule requires that for those structures, systems, and components (SSCs) that are within the scope of license renewal, applicants identify structures and components that are subject to an aging management review (AMR). The industry has taken the position that an applicant needs to include in its application only a description of the methodology used to implement the scoping and screening processes and the results of the screening process (i.e., the list of structures and components identified as requiring an AMR). The staff has modified the guidance documents to reflect this position. This meets the requirement of the rule, but our experience with past license renewal applications is that the scoping process is complex, and the lack of the scoping process results in the application (i.e., the list of SSCs that are within the scope of license renewal) represents a significant challenge for the reviewers and interested members of the public. An application that includes the results of the scoping process is more scrutable, facilitates the staff's review, and assists the staff in determining that structures and components subject to an AMR have been consistently identified. Without this information, the staff must rely on requests for additional information, site audits, and limited sampling of components not selected for an AMR. Inclusion of this information in the application does not constitute a significant added burden to the applicant and should, therefore, be encouraged.

Sincerely,

/RA/

George E. Apostolakis
Chairman

References

1. U.S. Nuclear Regulatory Commission, NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," dated March 1, 2001.
2. U.S. Nuclear Regulatory Commission, NUREG-1801, Vol. 1, "Generic Aging Lessons Learned (GALL) Report," dated March 1, 2001.
3. U.S. Nuclear Regulatory Commission, Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses," March 2001.
4. NEI 95-10, Revision 3, "Industry Guideline for Implementing the Requirements of 10 CFR 54 - The License Renewal Rule," March 2001.
5. U. S. Nuclear Regulatory Commission, NUREG-1739, "Analysis of Public Comments on the Improved License Renewal Guidance Documents," dated March 1, 2001.
6. Report dated November 15, 2000, from D. A. Powers, Chairman, Advisory Committee on Reactor Safeguards, to R. A. Meserve, Chairman, U.S. Nuclear Regulatory Commission, Subject: License Renewal Guidance Documents.

July 20, 2001

The Honorable Richard A. Meserve
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: RECOMMENDATION ON THE NEED TO REVISE 10 CFR PART 54,
"REQUIREMENTS FOR RENEWAL OF OPERATING LICENSES FOR
NUCLEAR POWER PLANTS"

Dear Chairman Meserve:

During the 484th meeting of the Advisory Committee on Reactor Safeguards, July 11-13, 2001, we heard presentations by and held discussions with representatives of the NRC staff and the Nuclear Energy Institute (NEI) regarding the need to revise 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," to resolve generic technical issues associated with license renewal. We also discussed this matter during our 483rd meeting on June 6-8, 2001. During our review, we had the benefit of the documents referenced.

Recommendation

10 CFR Part 54 is effective and efficient. It does not need to be revised at this time.

Discussion

In a Staff Requirements Memorandum (SRM) dated August 27, 1999, regarding SECY-99-148, "Credit for Existing Programs for License Renewal," the Commission asked the staff to prepare a detailed analysis and provide recommendations on whether it would be appropriate to resolve generic technical issues, including any credit for existing programs, by rulemaking. These recommendations were to be based on the accumulation of more data from license renewal applications of different designs and on experience gained from reviewing more applications.

Since the SRM was issued, the staff has reviewed license renewal applications for three pressurized water reactor plants and renewed their licenses. We have reviewed and commented on the Safety Evaluation Reports (SERs) associated with these applications. On the basis of our review, we believe that the license renewal process developed by the staff, with feedback from stakeholders, under the current rule is effective. This process is documented in a set of guidance documents: Generic Aging Lessons Learned (GALL) report, Standard Review Plan, and Regulatory Guide 1.188 that endorses NEI 95-10, Revision 3, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 – The License Renewal Rule."

These guidance documents incorporate the resolution of technical issues, such as credit for existing programs, thus making the license renewal process understandable and predictable. Future updates of the guidance documents will provide the means for incorporating the resolution of remaining outstanding technical issues without amending the rule. Although review of the first boiling water reactor application for Hatch, Units 1 and 2, has not been completed, resolution of the open items in the interim SER does not appear to require rulemaking.

License renewal applications and their reviews have become increasingly efficient with subsequent applications. We expect them to become even more efficient when licensees endorse the approaches suggested by the now-approved guidance documents. Avoiding rulemaking at this time will further stabilize the existing process and facilitate the submittal and review of future applications.

Sincerely,

/RA/

George E. Apostolakis
Chairman

References

1. Memorandum dated August 27, 1999, from Annette L. Vietti-Cook, Secretary, to William D. Travers, Subject: SECY-99-148 - Credit for Existing Programs for License Renewal.
2. Letter dated June 4, 2001, from Douglas J. Walters, Nuclear Energy Institute, to Christopher I. Grimes, Office of Nuclear Reactor Regulation, NRC, Subject: License Renewal Rulemaking.
3. Letter dated June 26, 2001, from David Lochbaum, Union of Concerned Scientists, to Christopher I. Grimes, Office of Nuclear Reactor Regulation, NRC, Subject: License Renewal Rulemaking.
4. Letter dated April 13, 2001, from George E. Apostolakis, Chairman, ACRS, to Richard A. Meserve, Chairman, NRC, Subject: Proposed Final License Renewal Guidance Documents.
5. Letter dated November 15, 2000, from Dana A. Powers, Chairman, ACRS, to Richard A. Meserve, Chairman, NRC, Subject: License Renewal Guidance Documents.
6. U. S. Nuclear Regulatory Commission, NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," dated March 1, 2001.
7. U. S. Nuclear Regulatory Commission, NUREG-1801, Vols. 1 and 2, "Generic Aging Lessons Learned (GALL) Report," dated March 1, 2001.
8. U. S. Nuclear Regulatory Commission, Regulatory Guide 1.188, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses," March 2001.
9. Nuclear Energy Institute, NEI 95-10, Revision 3, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," March 2001.
10. U. S. Nuclear Regulatory Commission, "Safety Evaluation Report With Open Items Related to the License Renewal of Edwin I. Hatch, Units 1 and 2," February 2001.