



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

March 26, 2009

SECRETARY

COMMISSION VOTING RECORD

DECISION ITEM: SECY-08-0161

TITLE: REVIEW OF RESEARCH AND TEST REACTOR LICENSE  
RENEWAL APPLICATIONS

The Commission (with Chairman Klein and Commissioners Lyons and Svinicki agreeing in part and disagreeing in part) acted on the subject paper as recorded in the Staff Requirements Memorandum (SRM) of March 26, 2009. Commissioner Jaczko approved the paper.

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".

Annette L. Vietti-Cook  
Secretary of the Commission

Attachments:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Klein  
Commissioner Jaczko  
Commissioner Lyons  
Commissioner Svinicki  
OGC  
EDO  
PDR

VOTING SUMMARY - SECY-08-0161

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. KLEIN	X	X			X	2/25/09
COMR. JACZKO	X					1/7/09
COMR. LYONS	X	X			X	12/9/08
COMR. SVINICKI	X	X			X	2/25/09

COMMENT RESOLUTION

In their vote sheets, Chairman Klein and Commissioners Lyons and Svinicki approved in part and disapproved in part and provided some additional comments. Commissioner Jaczko approved the paper. Subsequently, the comments of the Commission were incorporated into the guidance to staff as reflected in the SRM issued on March 26, 2009.

**NOTATION VOTE**

**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary  
**FROM:** CHAIRMAN KLEIN  
**SUBJECT:** SECY-08-0161 – REVIEW OF RESEARCH AND TEST REACTOR LICENSE RENEWAL APPLICATIONS

Approved X in part Disapproved X in part Abstain \_\_\_\_\_

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

COMMENTS: Below \_\_\_ Attached X None \_\_\_



\_\_\_\_\_  
SIGNATURE

March 26, 2009\*

\_\_\_\_\_  
DATE

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

\*Note: Originally signed on 2/25/09

## Chairman Klein's Comments on SECY-08-0161, Review of Research and Test Reactor License Renewal Applications

Research and test reactors (RTRs) comprise a small, yet essential, part of the Nation's infrastructure. They perform critical functions in a variety of endeavors, including training, higher education, medical research, and materials research. With the growing need for nuclear education and training, the roles of these reactors will expand and gain importance. Indeed, the number of students enrolled in nuclear engineering courses of study is increasing, so it is not outside the realm of possibility that more RTRs will be deployed in coming years. Additionally, non-power reactors will be a critical part of the solution to the looming potential shortage of medical isotopes. The staff needs to identify and implement efficiencies that will streamline the license renewal process for non-power reactors now—the Nation cannot afford for the NRC to wait until 2012 or later to begin updating this regulatory process. Therefore, I join Commissioner Lyons in disapproving the staff's plan to delay working with licensees to consider development of a rule governing the RTR license renewal process pending completion of the current backlog. As elaborated below, the staff should begin now to streamline RTR license renewals concurrent with the long-term plan for an enhanced renewal process, and I approve the use of the options described in enclosure 1 to SECY-08-0161 to proceed in this direction.

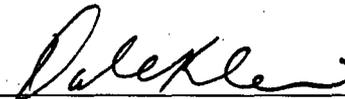
The staff states in SECY-08-0161 that the "current license renewal process for an RTR is essentially the same as for initial licensing of the facility." Conducting an RTR license renewal in this manner is overly complex while adding no apparent value in terms of public health and safety. These facilities pose low overall risks, and the NRC has already reviewed and approved rigorous safety analyses as part of their initial licensing and subsequent license amendment reviews. This process needs to be streamlined and better focused on aspects of license applications that bear directly on safety issues that provide for reasonable assurance of adequate protection of public health and safety. The result of such revisions to the way in which the NRC reviews RTR license renewal applications should be a graded process whose scope is commensurate with the risk posed by each facility.

10 CFR Part 50 contains minimal requirements for RTR license renewal, so the NRC has significant latitude to define the scope of its review of RTR license renewal applications without undertaking rulemaking. The staff should take advantage of this latitude by using risk estimates to implement a graded approach similar to that described in enclosure 1 to SECY-08-0161. This approach should incorporate elements of enclosure 1's alternate safety review approach, which would result in the staff not having to reanalyze items that the NRC had previously reviewed and approved. Risk can be estimated by determining potential dose consequences to the general public posed by individual RTRs, and the staff should use insights from the RTR security assessments that were completed in 2006 to inform the establishment of a dose threshold as a measure of risk. I agree with the staff's statement in this paper that it is not necessary to have a quantitative assessment of the risk associated with a narrowed scope of review, such as would be attained from probabilistic risk assessments. Facilities that present the least risk should be subjected to a minimal review. The staff should immediately begin to develop Interim Staff Guidance (ISG) to implement this risk screening process, and use of ISGs should begin within three months.

These process changes should be applied to license renewal applications that are currently under review. The staff should not seek amendments to these applications because the NRC will be adjusting the scope and focus of its review process, and there should be ample information available to support the staff's review. Also, the staff should ensure that, since changes would be made to a long-standing process, licensees and the public have prior notice of these process revisions. This stakeholder outreach should include open meetings with RTR licensees and members of the public.

One of the contributors to the backlog of RTR license renewal reviews is a lack of sufficient NRC staff members and expertise. Within six weeks of the staff requirements memorandum associated with SECY-08-0161, the staff should submit to the Commission a resource request, including staffing and contract funding needs, that will provide for implementing the interim changes to the review process, eliminating the backlog within eighteen months, and, in the long term, formalizing the review process changes and establishing a stable and predictable regulatory regime for RTRs. This long term plan should consider elements of the generic analysis approach, generic siting analysis, and the extended license term described in enclosure 1 to SECY-08-0161.

The staff cites limited licensee staff and resources as having contributed to the large backlog of RTR license renewal applications. To address this issue, during the long term phase of this effort, the staff should investigate ways to establish a mechanism to provide RTR licensees funding or contract support to assist them in completing licensing actions. For example, the staff could engage other Federal agencies (e.g., the Department of Energy (DOE)) and industry groups to set up an assistance program modeled on the DOE's successful program to convert RTRs from high-enriched to low-enriched uranium. Such an assistance program could raise the overall level of licensing expertise available to RTR staffs, thereby enhancing the quality and timeliness of licensing documents and their supporting analyses across the fleet of RTRs.



Dale E. Klein

3/26/2009

Note: originally signed on 2/25/2009

**NOTATION VOTE**

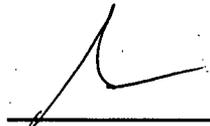
**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary  
**FROM:** COMMISSIONER JACZKO  
**SUBJECT:** SECY-08-0161 – REVIEW OF RESEARCH AND TEST REACTOR LICENSE RENEWAL APPLICATIONS

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

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

COMMENTS: Below \_\_\_\_\_ Attached \_\_\_\_\_ None X

  
\_\_\_\_\_  
SIGNATURE

1/7/09  
\_\_\_\_\_  
DATE

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

**NOTATION VOTE**

**RESPONSE SHEET**

TO: Annette Vietti-Cook, Secretary  
FROM: Commissioner Lyons  
SUBJECT: SECY-08-0161 – REVIEW OF RESEARCH AND TEST  
REACTOR LICENSE RENEWAL APPLICATIONS

Approved X in part Disapproved X in part Abstain \_\_\_\_\_

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

COMMENTS: Below \_\_\_ Attached X None \_\_\_

  
Peter B. Lyons

\_\_\_\_\_  
SIGNATURE

12/ 9 /08

DATE

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

### Commissioner Lyons' Comments on SECY-08-0161

The Atomic Energy Act of 1954, as amended (Act), allows the U.S. Nuclear Regulatory Commission (NRC) to issue licenses for a specified period and to renew these licenses upon the expiration of the specified period provided the licensee can ensure safe operation and protection of the environment during the additional period of operation. In issuing licenses for utilization and production facilities for industrial and commercial purposes, the Act states that NRC shall impose the minimum amount of regulations and terms of license as will permit the NRC to fulfill its obligations under the Act. Regarding utilization and production facilities useful in the conduct of research and development activities, the Act further states that the Commission will permit the conduct of widespread and diverse research and development.

NRC's licensing program ensures that the safety of a facility will continue to be maintained when its license is renewed. Public confidence in the renewal process is important and is gained when the public views this process as technically adequate, timely, stable and predictable. Also, to enhance transparency, a technically and legally sufficient basis should be publically available before a license is granted. This may be accomplished by holding periodic public meetings with RTR licensees to discuss changes to the license renewal process.

I appreciate the staff's effort to manage the RTR licensing program given resource constraints and competing priorities. Staff notes in the paper that the RTR community also has resource constraints. I also support staff's plan to use generic analyses for similar reactor types to achieve more efficiency in an enhanced review process for future reviews. Nevertheless, I believe it would be in the best interest of both the RTR community and NRC to adopt innovative approaches to ensure that the renewal process is timely and these reviews are conducted in the most efficient and effective way without a reduction in safety. To accomplish this, the current re-licensing process should be streamlined to focus the review on the most safety significant aspects of the application. The interim process can be revised to ensure NRC's re-licensing process is more efficient and consistent, thereby reducing any uncertainties in the process for both the RTR community and NRC. Therefore, I disapprove the staff's plan to delay working with the licensees to consider development of a rule governing the renewal process for RTR beyond 2012, pending completion of the current back-log. The staff should work on an interim streamlining process concurrent with the long-term plan for an enhanced renewal process.

Instead, staff in conjunction with the RTR community, should submit its plan for streamlining the RTR license re-licensing process for Commission review. This plan should include, but not be limited too, interim actions to address the current application back-log, a recommendation regarding the need for rulemaking, and guidance development. The plan could also include developing a basis for redefining the scope of the re-licensing process. Additionally, staff should implement short-term program initiatives and provide a memo to the Commission with an update of this progress on March 31, 2009. The staff should complete reviews of the outstanding applications substantially before 2012.

  
Peter B. Lyons

12/9/08  
Date

NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary  
FROM: COMMISSIONER SVINICKI  
SUBJECT: SECY-08-0161 – REVIEW OF RESEARCH AND TEST REACTOR LICENSE RENEWAL APPLICATIONS

Approved X In-Part Disapproved X In-Part Abstain \_\_\_\_\_

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

COMMENTS: Below \_\_\_\_\_ Attached X None \_\_\_\_\_

  
\_\_\_\_\_  
SIGNATURE

02/25/09  
\_\_\_\_\_  
DATE

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

**Commissioner Svinicki's Comments on SECY-08-0161  
Review of Research and Test Reactor License Renewal Applications**

I approve in part and disapprove in part of staff's proposal to postpone the development of a rule governing the renewal process for research and test reactors (RTRs) until the agency has successfully worked off the current backlog of RTR license renewal reviews. Instead, I join Commissioner Lyons in supporting a joint attack on both challenges concurrently, using some combination of the streamlining options described by staff in Enclosure 1 to SECY-08-0161, while, at the same time, developing a plan for rulemaking to further enhance this process, as may be appropriate.

I believe the Atomic Energy Act's provisions imposing a minimal regulatory burden on utilization and production facilities useful in the conduct of research and development activities was a tacit acknowledgement by Congress that no nation can successfully harness the atom for beneficial uses without research instruments such as RTRs to train each new generation of scientists and engineers. The NRC's regulatory role in the assurance of the continued safe operation of these instruments is an important part of our mission; not only as it relates to the protection of current populations, but also in support of the generations of future nuclear safety professionals who may be trained on these RTRs in the future. With this in mind, it does not seem unreasonable that NRC could move forward on some package of improvements to this process, now.

I appreciate the somewhat intractable nature of the many issues and considerations unique to the effective and efficient conduct of RTR license reviews. Staff has done a thorough job in this paper of laying before the Commission, once again, the complex and interconnected challenges of NRC staffing issues; licensee resourcing issues; issues associated with the somewhat suboptimal existing license infrastructure; and, issues associated with the current over-broad scope of the RTR license renewal process. Additionally, these reviews demand no compromise to the assurance of safe operation of these reactors for any extended license period and must provide for a level of public involvement which is sufficient to engender the requisite public confidence. A tall order . . . but nevertheless, I am convinced (perhaps more fully than the staff itself) that some combination of the many promising, process improvements staff has outlined in Enclosure 1 – some possibly requiring rulemaking, but some not – has the potential to bear fruit, even to applications already in the backlog, and that we should not be content to wait until 2012 before going after these process improvements. In particular, application of a risk-informed, graded approach and implementation of some elements of a generic analysis approach would seem to merit strong, near-term consideration. Consequently, I join Commissioner Lyons in supporting staff implementation of near-term process improvements concurrent with development of a long-term plan for an enhanced renewal process. Staff should provide a plan for Commission approval which would move NRC forward in this fashion.



Kristine L. Svinicki

02/25/09