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RESEARCH REACTOR CENTER

June 9, 2017

Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Rulemakings and Adjudications Staff

REFERENCE: Docket No. 50-186
University of Missouri-Columbia Research Reactor
Renewed Facility Operating License No. R-103

SUBJECT: Request for Public Comment on "Non-Power Production or Utilization Facility License Renewal," (82 FR 15643); Docket ID NRC-2011-0087

The University of Missouri Research Reactor (MURR) appreciates the opportunity to provide comments on the U.S. Nuclear Regulatory Commission's (NRC) proposal to amend its regulations that govern the license renewal process for non-power reactors, testing facilities, and other production or utilization facilities, licensed under the authority of Section 103, Section 104a, or Section 104c of the Atomic Energy Act of 1954, as amended (AEA), that are not nuclear power reactors, as published in the Federal Register (Volume 82, No. 60 / March 30, 2017). The NRC is also issuing concurrently draft Regulatory Guide (DG-2006), "Preparation of Updated Final Safety Analysis Reports for Non-power Production or Utilization Facilities," for review and comment.

The following are the NRC's specific requests for comments from Section IV of the proposed rule and MURR's responses to those specific requests:

1. *As discussed in Section III, "Discussion," of this document, the NRC is proposing that license terms for NPUFs, other than testing facilities, licensed under 10 CFR 50.21(a) or (c) would be removed from existing licenses via order. Are there any unintended consequences associated with removing license terms in this manner? Provide the basis for your answer.*

   MURR does not foresee any unintended consequences for removing license terms from existing licensees via order.

2. *Proposed § 50.71 would require all NPUFs to submit an update to the FSAR originally submitted with the facility's license application every 5 years. The NRC staff plans to specify the first submittal date in orders issued to each facility. Should the NRC specify the date by which each facility or category of facility must submit its first updated FSAR in the rule language instead of*

using site-specific orders? Are there any unintended consequences of establishing the first submittal dates through orders? Please provide the basis for your answer.

MURR feels that since the first updated FSAR submittal date is a one-time occurrence the NRC should use site-specific orders to establish the first submittal date. Additionally, MURR does not believe that there are any unintended consequences of establishing the first submittal dates through orders.

3. *Proposed § 50.135 outlines the license renewal process for facilities licensed under § 50.22 and testing facilities licensed under § 50.21(c). Should any elements of the process be removed from or added to the NRC proposal? Please provide specific examples.*

   MURR feels that none of the elements of the process need to be removed from or added to the NRC proposal.

4. *The NPUFs licensed under § 50.22 are those facilities that are used for industrial or commercial purposes. For example, a facility used primarily for the production and sale of radioisotopes other than for use in research and development would be considered a commercial production or utilization facility and therefore would be licensed under § 50.22. Currently, license applications for such NPUFs pass through additional steps in the licensing process (e.g., mandatory public hearings). These additional steps are required even though many such facilities have the same inherent low risk profile as low-power NPUFs licensed under § 50.21(a) or (c) which are not required to proceed through these additional steps. Are these additional steps necessary for all NPUFs licensed under § 50.22, or would it be more efficient and effective to differentiate low-power NPUFs licensed under § 50.22 from high-power NPUFs licensed under § 50.22? Elaborate on requirements that could be tailored for low-power, low-risk NPUFs licensed under § 50.22, including recommended criteria (e.g., power level or other measure) for establishing reduced requirements.*

   MURR feels that Section 104 of the Atomic Energy Act of 1954, as Amended (AEA), should only apply to facilities that are designed and operated for the sole purpose of medical therapy and research and development, as was intended by the AEA. NPUFs licensed under § 50.22 do not meet the intent of Section 104 and should continue undergoing the current process.

5. *As discussed in Section III, ``Discussion,'' of this document, the NRC is proposing that license terms would not expire for NPUFs, other than testing facilities, licensed under § 50.21(a) or (c), whereas testing facilities would continue to have fixed license terms that would require periodic license renewal. While the AEA does not establish a fixed license term for testing facilities, these facilities are currently subject to additional regulatory requirements due to higher power levels (e.g., mandatory public hearings, ACRS review, and preparation of environmental impact statements). Is a fixed license term necessary for testing facilities licensed under § 50.21(c) or would it be more efficient and effective to also grant testing facilities non-expiring licenses? Provide the basis for revising NRC requirements to account for the higher risk of testing facilities*

licensed under § 50.21(c) relative to other NPUFs licensed under § 50.21(a) or (c), including recommended criteria for establishing eligibility for a non-expiring license.

MURR feels that it would be more efficient and effective to also grant testing facilities non-expiring licenses, at least facilities that meet requirement (1) of the 10 CFR 50.2 definition of a testing facility – "A thermal power level in excess of 10 megawatts." Since the technical basis for what appears to be an arbitrary threshold value of 10 MWs seems to no longer exist, a new technical basis should be generated that is based on accident dose criteria. If a testing facility meets the accident dose criterion for what is proposed for research reactors – 1 rem (0.01 Sv) TEDE for the duration of the accident – then it should also be licensed in the same manner, if it is truly risk-based.

6. *For NPUFs licensed under § 50.22 and testing facilities licensed under § 50.21(c), does the revision to the timely renewal provision from 30 days to 2 years provide an undue burden on licensees? If so, in addition to your response, please provide information supporting an alternate provision for timely renewal.*

   MURR feels that the revising the timely renewal provision from 30 days to 2 years for NPUFs licensed under § 50.22 and testing facilities licensed under § 50.21(c), does not provide an undue burden on licensees.

7. *The NRC is considering requiring each NPUF licensee, other than testing facilities, to demonstrate in its accident analysis that an individual located in the unrestricted area following the onset of a postulated accidental release of licensed material, including consideration of experiments, would not receive a dose in excess of 1 rem (0.01 Sv) TEDE for the duration of the accident. Is the accident dose criterion 1 rem (0.01 Sv) TEDE in proposed § 50.34(a)(1)(ii)(D)(2) appropriate for NPUFs, other than testing facilities? If not, what accident dose criterion is appropriate? Please provide the basis for your answer.*

   MURR agrees that the accident dose criterion of 1 rem (0.01 Sv) TEDE for the duration of the accident as proposed in § 50.34(a)(1)(ii)(D)(2) is appropriate for NPUFs.

Additionally, the procedures for updating or revising pages in the FSAR should be consistent between what is stated on page xxv of NUREG-1537, Part 1, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors," and draft Regulatory Guide (DG-2006), "Preparation of Updated Final Safety Analysis Reports for Non-power Production or Utilization Facilities," to avoid confusion for the licensees. As DG-2006 is currently written, there are inconsistencies between the two documents.

Thank you for the opportunity to comment. Should you have any questions, please feel free to contact me at 573-882-4211 or ButlerRa@missouri.edu.

Sincerely,

FOR RALPH BUTLER

Ralph A. Butler, P.E.
Director

xc: Reactor Advisory Committee
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