
DRAFT
Environmental Assessment Supporting Proposed
Rule: Non-power Production or Utilization Facility
License Renewal

U.S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation

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UNITED STATES NUCLEAR REGULATORY COMMISSION
DRAFT ENVIRONMENTAL ASSESSMENT AND FINDING OF
NO SIGNIFICANT IMPACT

INTRODUCTION

The U.S. Nuclear Regulatory Commission (NRC) is proposing a rulemaking (referred to throughout as the proposed action) 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. In the proposed action, the NRC collectively refers to these facilities as non-power production or utilization facilities (NPUFs). This document presents the environmental assessment (EA) of the proposed action. Currently, 31 NPUFs are operating in the United States. In addition, the NRC has recently received two license applications for new NPUFs and expects additional applications in the coming years. The proposed action would affect class 103 facilities (reactors used for commercial or industrial purposes), and class 104a and 104c facilities (reactors used for medical therapy and research and development activities), as defined in the AEA. The proposed action would: 1) create a definition for “non-power production or utilization facility,” or “NPUF”; 2) eliminate license terms for NPUFs licensed under paragraph (a) or (c) of section 21 of title 10 of the *Code of Federal Regulations* (10 CFR), other than testing facilities, which are licensed under 10 CFR 50.21(c) but will continue to have license terms; 3) define the license renewal process for testing facilities licensed under § 50.21(c) and NPUFs licensed under 10 CFR 50.22; 4) require all NPUF licensees to submit updates to the final safety analysis report (FSAR) every five years; 5) amend the current timely renewal provision under 10 CFR 2.109, allowing facilities to continue operating under an existing license past its expiration date if the facility submits a license renewal application at least two years (currently 30 days) before

the current license expiration date; 6) provide an accident dose criterion of 1 rem (0.01 Sievert (Sv)) total effective dose equivalent (TEDE) for NPUFs other than testing facilities; 7) extend the applicability of 10 CFR 50.59 to NPUFs regardless of their decommissioning status; 8) clarify an applicant's requirements for meeting the existing provisions of 10 CFR 51.45; and 9) eliminate the requirement for NPUFs to submit financial qualification information with license renewal applications under 10 CFR 50.33(f)(2).

In accordance with §§ 51.21, 51.30, and 51.33, the NRC has prepared this draft EA and draft finding of no significant impact (FONSI) for the proposed action to issue a rule to streamline the license renewal process for NPUFs, as published in the Federal Register on [PROPOSED RULE PUBLICATION DATE] ([PROPOSED RULE FEDERAL REGISTER CITATION]). The EA is available in the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession No. ML17068A035 and on www.regulations.gov under Docket ID NRC-2011-0087.

Under the National Environmental Policy Act of 1969, as amended (NEPA), and the NRC's regulations in subpart A of 10 CFR part 51, the NRC staff has determined that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment. Therefore, the NRC staff has determined that preparation of an environmental impact statement (EIS) is not required. Based on the following EA, the NRC staff proposes to issue a FONSI.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The NPUFs are relatively low-power facilities primarily used for research, training, and development. The proposed action would affect class 103 facilities (for facilities used for commercial or industrial purposes) and class 104a or c facilities (for medical therapy and research and development activities) as defined in the AEA. As part of its oversight of NPUFs, the NRC administers an initial licensing process, which includes license terms defined under

10 CFR 50.51(a), followed by a license renewal process for those that seek to continue operating beyond their initial license term. In 2008, the NRC identified a need to identify and implement efficiencies in the NPUF license renewal process to streamline the process while ensuring that adequate protection of public health and safety is maintained. This need for improvement in the reliability and efficiency of the process was primarily driven by four issues: 1) historic NRC staffing and emergent issues; 2) limited licensee resources; 3) inconsistent existing license infrastructure; and 4) regulatory requirements and the broad scope of the renewal process.

To avoid such a backlog from developing again, the NRC is proposing to streamline the license renewal process for NPUFs. To achieve this objective, the NRC proposes to take the following actions:

1. Establish a regulatory framework for the license renewal process for testing facilities licensed under § 50.21(c) and NPUFs licensed under 10 CFR 50.22.
2. Eliminate license terms for NPUFs, other than testing facilities, licensed under 10 CFR 50.21(a) or (c).
3. Require all NPUF licensees to submit updated FSARs at intervals not to exceed five years.
4. Extend the timely renewal provision from 30 days to two years for testing facilities licensed under § 50.21(c) and NPUFs licensed under 10 CFR 50.22.

To achieve these objectives, the proposed action would amend various sections of 10 CFR parts 2, 50, and 51, as follows:

- **10 CFR 2.109—Effect of timely renewal application.** The current process allows NPUF licensees to submit license renewal applications as late as 30 days before the expiration of the existing license. The proposed rule would require the submittal of license renewal applications at least two years prior to license expiration for testing facilities licensed under § 50.21(c) and NPUFs licensed under § 50.22.

- **10 CFR 50.2—Definitions.** The proposed rule would add a definition for the term “non-power production or utilization facility” to cover all non-power facilities licensed under § 50.21(a), § 50.21(c), or § 50.22, including medical radioisotope irradiation and processing facilities, research reactors, and testing facilities.
- **10 CFR 50.33—Contents of applications; general information.** Non-power production or utilization facility license renewal applicants would no longer be required to include the financial qualification information that is required in the initial license application.
- **10 CFR 50.34—Contents of applications; technical information.** The proposed rule would establish an accident dose criterion for NPUFs, other than testing facilities subject to 10 CFR part 100. Currently, the NRC uses part 20 for NPUF accident dose limits. The proposed rule would make a conforming change to § 50.34(a)(1)(ii)(D) to clarify sections applicable to power reactors only, and to renumber those sections that only apply to power reactors. Although the new accident dose criterion specified in proposed § 50.34(a)(1)(ii)(D)(2) is higher than the current dose limit to members of the public in 10 CFR 20.1301(a)(1), the proposed accident dose criterion aligns with the early phase protective action guides published by the Environmental Protection Agency and provides adequate protection of the public from unnecessary exposure to radiation. Further, based on its knowledge of NPUF operating experience, the NRC notes that all current NPUF licensees meet more stringent dose criteria than those that would be established in the proposed rule.
- **10 CFR 50.51—Continuation of license.** The proposed rule would modify § 50.51(a) to include an exception to license terms for eligible NPUFs and would add § 50.51(c) to eliminate license terms for eligible NPUFs.
- **10 CFR 50.59—Changes, tests, and experiments.** The proposed rule would modify the applicability of this section to include NPUFs that are in the process of

decommissioning and no longer have fuel (e.g., they have returned their fuel to the Department of Energy).

- **10 CFR 50.71—Maintenance of records, making of reports.** The proposed rule would require NPUFs to submit updated FSARs at intervals not to exceed five years. The proposed rule also would make conforming changes to § 50.71(e)(3) and (e)(4) to explicitly identify the applicability of existing requirements to power reactors.
- **10 CFR 50.82—Termination of license.** The proposed rule would make conforming changes to this section to modify current termination of license requirements so that they refer to “non-power production or utilization facility” licensees and not to “non-power reactor” licensees, and would make conforming changes to reflect non-expiring license terms for qualifying NPUFs (i.e., currently operating research reactors).
- **10 CFR 51.45—Environmental Report.** The proposed rule would modify § 51.45(a) to reference new § 51.56, described below.

The proposed action also would add a new section to part 50—§ 50.135—which would establish the license renewal process for testing facilities licensed under § 50.21(c) and NPUFs licensed under § 50.22. Proposed § 50.135 would not change the current license renewal application process, but would provide the NRC with a regulatory framework specific to the NPUF license renewal process. A framework specific to this process currently does not exist. A new section also would be added to part 51—§ 51.56—to specify environmental reporting requirements for NPUF licensees and applicants. Similar to proposed § 50.135, this new section would not change current requirements, but would instead clarify an applicant’s existing requirements for the submittal of environmental reports. Environmental reports would include the information specified in § 51.45, but applicants pursuing license renewal who have previously submitted an environmental report to the NRC would be permitted to reference, update, or supplement the information previously submitted to reflect any significant environmental change due to operational experience, changes in operations, or proposed decommissioning activities.

The Need for the Proposed Action:

The purpose of the proposed regulatory action is to streamline the NPUF license renewal process and make it a less burdensome process for both license renewal applicants and the NRC staff, consistent with the minimum regulation standard established in Section 104 of the AEA, while continuing to protect public health and safety, promote common defense and security, and protect the environment. Additionally, the proposed action would prevent backlogs of NPUF license renewal applications, similar to the one that developed in late 2001.

In addition, more specific dose criteria in accident analyses for NPUFs, other than those NPUFs subject to part 100, are needed. Since January 1, 1994, for NPUF licensees (other than testing facilities) applying for initial or renewed licensees, the NRC applies the accident dose criterion by comparing the results from the initial or renewed license applicant's accident analyses with the standards in 10 CFR part 20.¹ Prior to that date, the NRC had generally found acceptable accident doses that were less than 0.5 rem (0.005 Sv) whole body and 3 rem (0.03 Sv) thyroid for members of the public. On January 1, 1994, the NRC amended 10 CFR part 20 to lower the dose limit to a member of the public to 0.1 rem (0.001 Sv) TEDE. The NRC has determined that the public dose limit of 0.1 rem (0.001 Sv) TEDE is unduly restrictive to be applied as accident dose criteria for NPUFs, other than those NPUFs subject to 10 CFR part 100.² However, the NRC considers the accident dose criteria in 10 CFR part 100 (25 rem whole body and 300 rem to the thyroid) applicable to accident consequences for power reactors, which have greater potential consequences resulting from an accident, to be too high for NPUFs other than testing facilities. For these reasons, the NRC is proposing to amend its regulations in § 50.34 to add accident dose criteria for NPUFs not subject to part 100.

Environmental Impacts of the Proposed Action:

¹ For testing facilities, accident dose criteria are found in part 100.

² The NRC Atomic Safety and Licensing Appeal Board stated that the standards in part 20 are unduly restrictive as accident dose criteria for research reactors. (Trustees of Columbia University in the City of New York, ALAB-50, 4 AEC 849, 854-855 (May 18, 1972)).

The NRC has evaluated the potential environmental and radiological impacts unique to each site for currently licensed NPUFs at the time of initial licensing and for at least one license renewal application, taking into account nearby facilities and residences, site safety evaluations, technical specifications of the reactors, and exposure limits. Through this process, the NRC staff has determined that the continued operation of existing licensed NPUFs does not pose a significant environmental impact. This proposed action would not alter the characteristics of any particular NPUF site, and therefore would not change the findings of previously conducted EAs and associated Findings of No Significant Impact. The proposed action also would not increase the likelihood of accidents or increase their impacts, in the very unlikely event that an accident should occur.

The proposed action would eliminate the license renewal process for NPUFs licensed under § 50.21(a) or (c), other than testing facilities. Therefore, the proposed action would eliminate the opportunity for the NRC to conduct an EA at the time of license renewal for NPUFs licensed under § 50.21(a) or (c), other than testing facilities, as there would be no agency action and hence, no requirement to conduct a NEPA analysis. The proposed action would not change the license renewal process for NPUFs licensed under § 50.22, or testing facilities.³ The rule also would require updated FSAR submissions more frequently, which would provide the NRC with periodic, updated information about the safety conditions of each facility. The FSAR submissions would enhance the information currently available to the NRC, and may help parties identify safety issues sooner, thereby decreasing the potential for environmental impacts.

³ While the AEA does not establish a fixed license term for testing facilities, these facilities are currently subject to additional requirements due to higher power levels (e.g., ACRS review, preparation of environmental impact statements). Therefore, the NRC is proposing to continue license renewal for testing facilities because of their higher environmental risk relative to other NPUFs licensed under § 50.21(a) or (c).

This EA considers the environmental impacts associated with the proposed changes affecting the following licensees: 1) NPUFs licensed under § 50.22 and testing facilities; and 2) NPUFs licensed under § 50.21(a) or (c) other than testing facilities.

1. Non-power production or utilization facilities licensed under 10 CFR 50.22 (class 103 NPUFs) and testing facilities licensed under § 50.21(c) (certain class 104(c)

NPUFs): These NPUFs would experience no changes in the license renewal process. As a result, there would not be a change in environmental impacts from the proposed action. The proposed action would not eliminate the license renewal process for these facilities, and therefore, the NRC would still complete either an EA or an EIS before determining whether to approve a license renewal application for this type of facility. As described in the Notice of Proposed Rulemaking, the proposed action also would specify that applicants for new licenses or license renewals must submit certain information to the NRC in the form of an environmental report or a supplement to an environmental report as specified in proposed § 51.56.

2. Facilities licensed under 10 CFR 50.21(a) or (c) (class 104 NPUFs), other than

testing facilities): Under the proposed action, these facilities would be eligible for non-expiring license terms, and therefore, the NRC would only perform an EA at the time of initial licensing (which has already been performed for existing licensees). After initial licensing, the NRC would only perform an environmental review for these NPUFs upon submittal of an application for a license amendment or a request for an exemption. The NRC would prepare an EA as required by § 51.21 and in accordance with the requirements of § 51.30, or the staff would document its determination that the requested change qualifies for a categorical exclusion under § 51.22. As discussed in this EA, the NRC staff has concluded that the indefinite extension of the license term would not pose significant environmental impacts for two reasons: 1) consequences of

accidents at NPUFs are not significant; and 2) aging-related issues do not pose a potential for environmental impacts.

The analysis and conclusions discussed below are based on Appendix 12.1 in NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors," part 2, "Standard Review Plan and Acceptance Criteria" (ADAMS Accession No. ML042430048), which documents the environmental considerations associated with licensing low-power NPUFs. The EAs that have been performed since issuance of these environmental considerations (1996) indicate that there is no new information with respect to the environmental findings for operating NPUFs.

Consideration of Potential Environmental and Accident Consequences. The NPUFs licensed under § 50.21(a) or (c), other than testing facilities, operate at low power levels (as identified in Table 1), temperatures, and pressures, and have a small inventory of fission products in the fuel, as compared to power reactors, therefore presenting a lower potential radiological risk to the environment and the public.

Table 1. List of Non-power Production or Utilization Facilities with Operating Licenses Under 10 CFR 50.21(a) or (c), Other Than Testing Facilities

Facility Name	Power Level kW(t)	Last License Renewal or Issuance Date
Aerotest	250	7/2/1965
Armed Forces Radiobiology Research Institute	1,100	8/1/1984
Dow Chemical Company	300	6/18/2014
GE-Hitachi	100	4/21/2001
Idaho State University	0.005	8/14/2006
Kansas State University	250	3/19/2008
Massachusetts Institute of Technology	5,000	11/1/2010
Missouri University of Science and Technology	200	3/30/2009
North Carolina State University	1,000	4/30/1997
Ohio State University	500	6/18/2008
Oregon State University	1,100	9/10/2008
Pennsylvania State University	1,100	11/19/2009
Purdue University	1	8/8/1988

Facility Name	Power Level kW(t)	Last License Renewal or Issuance Date
Reed College	250	4/24/2012
Rensselaer Polytechnic Institute	0.1	6/27/2011
Rhode Island Atomic Energy Commission	2,000	7/23/1964
Texas A&M University (AGN)	0.005	8/26/1957
Texas A&M University (TRIGA)	1,000	10/1/2015
U.S. Geological Survey	1,000	2/24/1969
University of California/Davis	2,300	8/13/1998
University of California/Irvine	250	11/24/1969
University of Florida	100	8/30/1982
University of Maryland	250	8/7/1984
University of Massachusetts/Lowell	1,000	11/21/1985
University of Missouri/Columbia	10,000	10/11/1966
University of New Mexico	0.005	2/18/2011
University of Texas	1,100	1/17/1992
University of Utah	100	10/31/2011
University of Wisconsin	1,000	3/25/2011
Washington State University	1,000	9/30/2011

Twenty-seven⁴ of the 31 currently licensed facilities' cores are submerged in a tank or pool of water. These volumes of water, ranging from 5,000 to more than 100,000 gallons, provide a built-in heat sink for decay heat. Twenty-five of these 27 licensed facilities are not required to have emergency core cooling systems (ECCS) as analysis has shown that air cooling is sufficient to remove decay heat if the water was not present. These NPUFs do not have significant decay heat, even after extended maximum licensed power operation, to be a risk for overheating, failure of a fission product barrier, or posing a threat to public health and safety even under a loss of coolant accident where water levels drop below the core. Additionally, many of the facilities monitor for leaks in the form of routine inspections, track and trend water inventory, and perform surveillances on installed pool level instrumentation and sensors. Licensees perform analyses for radioisotope identification of primary and, if applicable, secondary coolant, by sampling the water periodically. Many facilities sample weekly for gross radioactive material content which is also used to establish trends to quickly identify fuel or heat exchanger failure. Most of these licensees analyze, in their FSARs, pool and heat exchanger failures and the potential consequences for the safety of the reactor, workers, and public. In general, the radioisotope concentrations in pool or tank water at NPUFs are within the effluent concentration limits specified in Appendix B to 10 CFR part 20, and thus are not radiologically significant.

Only two of the NPUFs licensed under § 50.21(a) or (c), other than the one testing facility, are required by their safety analyses to have an ECCS. For these NPUFs,⁵ the ECCS is only needed to direct flow into the top of the tank or pool to

⁴ The three Aerojet-General Nucleonics (AGN) reactors (University of New Mexico (Docket No. 50-252), Idaho State University (Docket No. 50-284), and Texas A&M University (Docket No. 50-59)), each rated at 5-watts, and the University of Florida Argonaut reactor (Docket No. 50-83), rated at 100 kilowatts are not considered tank or pool reactors.

⁵ The two facilities are Massachusetts Institute of Technology (MIT) (Docket No. 50-20) and the University of California-Davis (Docket No. 50-607).

provide cooling for a limited period of time after reactor shutdown. This period of time is dependent on the recent operational history of the reactor, which determines the decay heat present at reactor shutdown. After this relatively brief time, air cooling is adequate to remove decay heat even without the ECCS. Additionally, working order of the ECCS is ensured through required surveillance and testing on the system at these facilities. Operation is not permitted if the ECCS has not been verified operational prior to reactor startup or if the system is deemed non-operational during reactor operation. In the unlikely event that the ECCS is not available after an operational history that would require ECCS, core damage will not occur if the core is uncovered as long as a small amount of cooling flow is directed to the core, which is available from multiple sources.

Because of the inherent low risk posed by these NPUFs, the NRC staff has concluded that the proposed action to eliminate license terms for NPUFs licensed under § 50.21(a) or (c), other than testing facilities, would not increase the potential for environmental impacts.

Aging. NPUFs licensed under § 50.21(a) or (c), other than testing facilities, are simple in their design and operation and therefore, the scope of aging-related concerns is limited. The NRC staff has found no significant aging issues that need evaluation at the time of license renewal because the NRC currently imposes aging-related surveillance requirements on NPUFs via technical specifications. Specifically, over the past 60 years, the NRC staff has determined that for NPUFs there are two main areas related to aging that need surveillance because of potential safety concerns: 1) fuel cladding and 2) instrumentation and control features.

With regard to fuel cladding, the NRC currently requires NPUFs to perform periodic fuel inspections. Through years of operational experience, the NRC staff has found that fuel failures either do not occur or do not release significant amounts of fission products and are quickly detected by existing monitoring systems and surveillances. If

fuel failures are detected, licensees are able to take the facility out of service without delay and remove any failed assemblies from service.

With regard to instrumentation and control, the NRC staff has found that failures in this area result in automatic facility shutdown. Failures reveal themselves to the licensee and do not prevent safe shutdown. Over the past 60 years of operation of these facilities, the potential occurrence of age-related degradation has been successfully mitigated through inspection, surveillance, monitoring, trending, recordkeeping, replacement, and refurbishment. In addition, licensees are required to report preventive and corrective maintenance activities in their annual reports, which are reviewed by the NRC. This allows the NRC to identify new aging issues if they occur. Therefore, the NRC staff has concluded that existing requirements and facility design and operational features address concerns over aging-related issues during a non-expiring license term.

Additionally, the design bases of these facilities evolve slowly over time. The NRC receives approximately five license amendment requests from all NPUF licensees combined each year. Further, on average, each of these licensees only reports five § 50.59 evaluations per year for changes to its facility that do not require prior NRC approval. Lastly, changes to regulations that would impact the licensing bases of power reactor facility operations rarely apply to NPUFs. Therefore, the NRC staff has concluded that existing surveillance requirements and facility design and operational features eliminate concerns over aging-related environmental impacts during a non-expiring license term.

Although the proposed action would eliminate the opportunity to conduct an EA at the time of license renewal for NPUFs licensed under § 50.21(a) or (c), other than testing facilities, the NRC would be able to invoke § 51.41, "Requirement to submit environmental information," if

an environmental concern develops that requires that the licensee request a license amendment.

The proposed action does not change the requirements for applicants for new licenses and therefore, any new NPUF license applications would be required to undergo a thorough environmental review culminating in the preparation of an EA or EIS, as appropriate. However, the proposed action would add § 51.56 to provide a regulatory basis for the NRC to require environmental information from NPUF applicants. Specifically, the section would clarify an applicant's existing requirements for meeting the provisions of § 51.45 for applicants seeking a license to construct or operate an NPUF, or seeking to renew an existing license (for NPUFs licensed under § 50.22). This change improves consistency throughout part 51 with respect to environmental report submissions required for applicants seeking licensing actions. The inclusion of clear and consistent regulatory requirements for applicants would help to ensure that the NRC effectively and efficiently meets its environmental review requirements consistent with NEPA and the NRC's regulations for implementing NEPA as codified in part 51. While proposed § 51.56 does not have any direct environmental impact, its requirements advance safety and keep relevant parties informed of changes.

In summary, the NRC staff has concluded that there would be no significant environmental impacts associated with implementation of the proposed action for the following reasons:

- 1) The proposed requirements to eliminate license terms for NPUFs, other than testing facilities, licensed under § 50.21(a) or (c) would result in no additional radiological or non-radiological impacts because of the existing surveillance, reporting, and oversight and the minimal accident consequences of these facilities.
- 2) The implementation of the proposed action would not affect the NEPA environmental review requirements for new facilities and facilities applying for and still subject to license renewal.

- 3) The proposed accident dose criterion for NPUFs, other than testing facilities subject to part 100, would result in no additional radiological or non-radiological impacts because the new accident dose criterion specified in proposed § 50.34(a)(1)(ii)(D)(2) aligns with the early phase protective action guides published by the Environmental Protection Agency and provides reasonable assurance of adequate protection of the public from unnecessary exposure to radiation.

The principal effect of this action would be to streamline the NPUF license renewal process and to require more frequent updates to FSARs. The proposed action also would establish an accident dose criterion for NPUFs and would clarify existing requirements consistent with the rulemaking objectives discussed previously. As none of the revisions would affect current occupational exposure requirements, the NRC staff has concluded that this action would have no incremental impact on occupational exposure.

The action would neither significantly increase the probability or consequences of accidents nor result in changes in the types of effluents that may be released offsite. As a result, there would be no changes in occupational or public radiation exposure.

Given that the proposed action does not involve any change in the operation of any NPUFs, and considering the minimal heat load they dissipate to the environment, the NRC staff concludes that the proposed action would not have a significant non-radiological impact on the environment.

Accordingly, the NRC staff concludes that there would be no significant environmental impact associated with the proposed action.

Alternatives to the Proposed Action:

The NRC considered four options to fulfill the need for action: a no-action alternative (Option 1), two rulemaking alternatives (Options 2 and 3), and a non-rulemaking alternative (Option 4). The NRC staff's preferred option is Option 3.

The no-action alternative would not change the existing license terms or renewal process as described in current regulations and guidance, and therefore, would not incorporate any lessons learned from previous license renewal application reviews and would fail to satisfy the NRC's objectives and Commission direction to "establish a more efficient, effective and focused regulatory framework."

Under Option 2, the NRC would undergo a rulemaking to require FSAR updates and to revise the timely renewal provision. This option would require a licensee to submit an updated FSAR every five years to ensure that a licensee's licensing basis is kept current. Option 2 would also extend the timely renewal provision to two years ahead of license expiration for facilities licensed under § 50.22 and testing facilities licensed under § 50.21(c), so that the NRC has an adequate amount of time to conduct a thorough acceptance review of the license renewal application. The current regulatory framework of 30 days is not sufficient for the NRC to complete a comprehensive acceptance review. Additional time would streamline the overall license renewal process by addressing the adequacy of an application prior to addressing the technical content of the application. However, Option 2 would maintain the current license renewal process for all NPUFs, which would continue to impose significant burden on licensees and the NRC.

Option 3 is a rulemaking to require FSAR updates, revise the timely renewal provision for testing facilities and NPUFs licensed under § 50.22, and eliminate license terms for NPUFs, other than testing facilities, licensed under § 50.21(a) or (c). All NPUFs would be required to submit FSAR updates every five years. Option 3 is expected to reduce the burden on NPUFs, other than testing facilities, licensed under § 50.21(a) or (c) by forgoing the license renewal process. Option 3 would address all of the NRC's regulatory objectives by streamlining the license renewal process.

Non-rulemaking alternatives, such as issuing a new regulatory guide and updating NUREG-1537, were considered under Option 4. However, non-rulemaking approaches would

not be responsive to the Commission's direction to "establish a more efficient, effective and focused regulatory framework." As a result, non-rulemaking alternatives cannot achieve the NRC's objectives.

Alternative Use of Resources:

The proposed action would not involve the use of any resources not previously considered by the NRC in past environmental documents, statements for issuance of operating licenses, or license renewals for the facilities that would be affected by this action. The NRC staff has determined that there are no irreversible commitments of resources associated with the proposed action.

Agencies and Persons Consulted:

The NRC developed the proposed rule and this EA. In accordance with its stated policy, the NRC provided a copy of the proposed rule to designated liaison officials for each state. No other agencies were consulted.

DRAFT FINDING OF NO SIGNIFICANT IMPACT

The NRC has prepared this draft EA as part of its review of the proposed action. On the basis of this draft EA, the NRC staff finds that there are no significant environmental impacts from implementation of the proposed action because the proposed action would not entail any changes in the operation of any NPUFs. This finding is based upon NPUF operating experience over the past 60 years and the NRC's experience reviewing license renewal applications over the past 40 years. Therefore, the NRC staff concludes that the proposed action would not have a significant effect on the quality of the human environment and that the preparation of an EIS is not warranted. Accordingly, the NRC staff has determined that this draft finding of no significant impact is appropriate. A final determination to prepare either an EIS or a final finding of no significant impact will be made after the proposed rule's public comment period expires.

Documents may be examined and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>.

Dated at Rockville, Maryland, this 30 th day of March, 2017.

For the Nuclear Regulatory Commission.

/RA/

Louise Lund, Director
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: ENVIRONMENTAL ASSESSMENT SUPPORTING PROPOSED RULE:
 NON-POWER PRODUCTION OR UTILIZATION FACILITY LICENSE RENEWAL
 (RIN-3150-AI96, NRC-2011-0087)
DATED: March 30, 2017

ADAMS ACCESSION Nos.: Pkg: ML15323A048 EA: ML15323A060 WITS: 200900140

*Via E-Mail

OFFICE	NRR/DPR/PRMB: PM	NRR/DPR/PRLB: PM*	NRR/DPR/PRMB: RS*	NRR/DPR/PRMB: BC*	NRR/DPR/PRLB: BC*
NAME	RBeall	DHardesty	GLappert	TInverso	AAdams
DATE	12/03/15	12/08/15	12/03/15	12/03/15	12/07/15
OFFICE	NRR/DPR: DD*	NRR/DPR: D	NRR/DRA:D*	NRR/DLR:D*	NRR/DIRS:D*
NAME	MGavrilas	LKokajko	JGitter	CMiller	SMorris (AHowe for)
DATE	12/28/15	01/11/2016	12/14/15	12/15/15	12/15/15
OFFICE	RES/DE: D*	NMSS/DUWP/RDB: BC*	ADM/DAS/RADB: BC*	OCIO/CSD/FPIB: BC*	OGC (NLO)*
NAME	BThomas	BWatson (TSmith for)	CBladey (DForder for)	KMorgan-Butler (KBenney for)	HBenowitz
DATE	02/01/16	01/29/16	02/17/16	01/28/16	03/04/16
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NAME	WDean	VMcCree (MJohnson for)	LLund		
DATE	04/01/16	04/06/16	3/30/2017		

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