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## **POLICY ISSUE**

### **(Notation Vote)**

May 6, 2020

SECY-20-0042

FOR: The Commissioners

FROM: Margaret M. Doane  
Executive Director for Operations

SUBJECT: RULEMAKING PLAN ON COST RECOVERY CRITERIA FOR  
RESEARCH AND DEVELOPMENT UTILIZATION FACILITIES

PURPOSE:

In Staff Requirements Memorandum (SRM) SECY-15-0129, "Commission Involvement in Early Stages of Rulemaking," dated February 3, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16034A441), the Commission directed the staff to develop a streamlined Rulemaking Plan and seek Commission approval to initiate any new nonroutine, nondelegated rulemaking. Accordingly, the staff requests approval to begin work on, and to budget for, a rulemaking addressing the financial criteria used to determine whether a non-power utilization facility is licensed as a commercial facility under Section 103, "Commercial Licenses," of the Atomic Energy Act of 1954, as amended (AEA), or as a research and development facility under paragraph c of Section 104, "Medical Therapy and Research and Development," of the AEA.

SUMMARY:

This rulemaking would revise the regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," to be consistent with the amendments made to Section 104c of the AEA by the Nuclear Energy Innovation and Modernization Act (NEIMA) (Pub. L. 115-439; 132 Stat. 5565), enacted on January 14, 2019. The rulemaking would also clarify the U.S. Nuclear Regulatory Commission's (NRC's) application of the financial criteria to certain licensees.

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BACKGROUND:

For commercial and industrial facilities, the NRC issues licenses under Section 103 of the AEA and 10 CFR 50.22. 10 CFR 50.22, in part, states a facility is deemed to be for industrial or commercial purposes if the facility is to be used so that more than 50 percent of the annual cost of owning and operating its facility is devoted to the production of materials, products, or energy for sale or commercial distribution, or to the sale of services, other than research and development or education or training. Commercial and industrial facilities are subject to additional licensing requirements beyond those for research and development facilities, including preparation of an environmental impact statement, review by the Advisory Committee on Reactor Safeguards, mandatory hearings, and fixed license terms not to exceed 40 years.

For research and development facilities, the NRC issues licenses under Section 104c of the AEA and 10 CFR 50.21(c). Under the current regulations, a facility can be licensed as a research and development facility only if the licensee devotes no more than 50 percent of the annual cost of owning and operating the facility to the commercial activities described in 10 CFR 50.22.

DISCUSSION:Title:

Cost Recovery Criteria for Research and Development Utilization Facilities.

Regulations:

10 CFR 50.22, "Class 103 licenses; for commercial and industrial facilities," and paragraph c of 10 CFR 50.21, "Class 104 licenses; for medical therapy and research and development facilities."

Regulatory Issue

Before NEIMA became law, Section 104c of the AEA read, in part:

The Commission is authorized to issue licenses to persons applying therefor for utilization and production facilities useful in the conduct of research and development activities of the types specified in section 31 and which are not facilities of the type specified in subsection 104b. ...

NEIMA Section 106, "Encouraging Private Investment in Research and Test Reactors," amended AEA Section 104c in two ways. First, NEIMA removed the words "and which are not facilities of the type specified in subsection 104b." To implement this deletion, the NRC must remove from 10 CFR 50.21(c) the analogous reference to 10 CFR 50.21(b) to conform the regulations with Section 104c of the AEA.

Second, NEIMA added the following new text to the end of Section 104c of the AEA:

The Commission is authorized to issue licenses under this section for utilization facilities useful in the conduct of research and development activities of the types specified in section 31 in which the licensee sells research and testing services and energy to others, subject to the condition that the licensee shall recover not

more than 75 percent of the annual costs to the licensee of owning and operating the facility through sales of nonenergy services, energy, or both, other than research and development or education and training, of which not more than 50 percent may be through sales of energy.

This amendment changed the framework under which the NRC determines whether a utilization facility<sup>1</sup> that is useful in the conduct of research and development is licensed under Section 103 or Section 104c of the AEA. Before NEIMA, the AEA did not specify the criteria to use when determining whether to issue a Class 103 or Class 104c license for a facility—the criterion appeared only in 10 CFR 50.22. As noted above, the NRC's current regulatory criterion is based on the percentage of the annual cost of owning and operating a facility that **is devoted to commercial activities** specified in 10 CFR 50.22. If 50 percent or less of the annual cost of owning and operating the facility is devoted to the commercial activities specified in 10 CFR 50.22, then the facility is licensed under Section 104c of the AEA as a research and development facility. Using this criterion, a Class 104c license holder could recover 100 percent of the annual cost of owning and operating its facility through commercial activities, provided the licensee devotes no more than 50 percent of the cost of owning and operating the facility to those commercial activities.

In contrast to the criterion in 10 CFR 50.22, the new criteria NEIMA added to AEA Section 104c focus on the percentage of the annual cost of owning and operating a facility that **is recovered from commercial activities**. Specifically, the NRC is now authorized to issue a license under AEA Section 104c for a utilization facility that recovers not more than 75 percent of the annual costs to the licensee of owning and operating the facility through sales of nonenergy services, energy, or both, other than research and development or education and training, and recovers not more than 50 percent of annual costs through sales of energy to others.

In addition to making conforming changes to 10 CFR 50.22 to reflect the new cost recovery criteria in Section 104c of the AEA, the staff proposes to clarify the applicability of the new cost recovery criteria. Currently, the staff is applying the new cost recovery criteria to the issuance of initial and renewed Class 104c licenses for utilization facilities, because the criteria added to Section 104c of the AEA amended the NRC's authority to issue such licenses. However, the changes made to AEA Section 104c through NEIMA do not address the applicability of the cost recovery criteria to existing Class 104c licenses for utilization facilities or to other licensing actions such as the issuance of license amendments. Furthermore, the Commission is currently considering a final rule that would remove the 40-year limit on license terms for research reactors and allow existing research reactor licenses to be amended to be nonexpiring, and therefore not subject to renewal by issuance of a renewed facility license.<sup>2</sup> Because NEIMA is silent on the applicability of the cost recovery criteria to existing licenses, the NRC could continue to apply the current requirements in 10 CFR 50.22 or apply the new cost recovery criteria to these current licensees. The rulemaking recommended by this plan would address this issue and enhance regulatory certainty for holders of utilization facility licenses issued under the current requirements of 10 CFR 50.21(c) and 50.22.

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<sup>1</sup> NEIMA speaks only to utilization facilities and not to production facilities. Both types of facilities can be licensed under 10 CFR 50.21(c) and 50.22.

<sup>2</sup> SECY-19-0062, "Final Rule: Non-power Production or Utilization Facility License Renewal," dated June 17, 2019 (ADAMS Accession No. ML18031A000).

### Existing Regulatory Framework

As noted above, Sections 103 and 104c of the AEA, as implemented by 10 CFR 50.22 and 50.21(c), set forth the types of licenses the NRC issues for production and utilization facilities that are intended for commercial and industrial purposes or research and development purposes, respectively.

In NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors," issued February 1996 (ADAMS Accession Nos. ML042430055 (Part 1: Format and Content) and ML042430048 (Part 2: Standard Review Plan and Acceptance Criteria)), the NRC provides information about preparing and reviewing license applications for research and test reactors, including the financial aspects of an application. In general terms, the guidance describes the financial information that an applicant should provide to the NRC to demonstrate that the facility will be either a commercial non-power utilization facility (Class 103) or a non-power utilization facility for research and development (Class 104c). The guidance also explains the NRC's acceptance criteria, review procedures, and evaluation findings in this area. Consistent with the current requirement in 10 CFR 50.22, NUREG-1537 focuses on information related to the cost of owning and operating the facility and the percentage of this cost devoted to the commercial activities in 10 CFR 50.22; the guidance does not discuss cost recovery as a criterion for determining the appropriate class of license for a given facility.

### Explanation of the Preferred Alternative

The staff has determined that rulemaking is necessary to conform 10 CFR 50.21(c) and 50.22 with changes to Section 104c of the AEA. In determining the recommended scope of the rulemaking, the staff identified and evaluated the following five alternatives to address the applicability of the cost recovery criteria to existing Class 104c licenses for utilization facilities:

- (1) **Status quo.** Currently, holders of Class 104c licenses for utilization facilities issued before January 14, 2019, must continue to meet the cost expenditure criterion in 10 CFR 50.22 under which they were licensed. Since January 14, 2019, the NRC applies both the cost recovery criteria in Section 104c of the AEA and the criterion on cost expenditures in 10 CFR 50.22 to all applicants for initial and renewed Class 104c licenses for utilization facilities. Both are applied because the cost recovery criteria in Section 104c of the AEA do not conflict with the cost expenditure criterion in the current regulations in 10 CFR 50.22 (and therefore do not serve as a de facto replacement for 10 CFR 50.22), and NEIMA does not provide any direction to the contrary. A possible disadvantage of this alternative is that applicants for Class 104c licenses would likely request exemptions from the cost expenditure criterion in 10 CFR 50.22 in order to demonstrate compliance only with the cost recovery criteria in Section 104c of the AEA. This could result in the NRC exempting a few licensees from compliance with 10 CFR 50.22 instead of modifying the regulations to facilitate compliance with the applicable requirements by all applicants and licensees. In addition, as discussed in more detail below, the staff is revising NUREG-1537 to provide guidance on compliance with the new cost recovery criteria.
- (2) **Amend 10 CFR 50.22 to specify that the existing cost expenditure criterion applies to all production facility licenses and to utilization facility licenses issued before January 14, 2019, and that the cost recovery criteria in Section 104c of the AEA apply to utilization facility licenses issued after January 14, 2019.** This alternative would maintain the status quo for existing non-power production and utilization facility

licensees and apply only the cost recovery criteria in Section 104c of the AEA to the issuance of any new or renewed Class 104c utilization facility licenses.

- (3) **Amend 10 CFR 50.22 to replace the current cost expenditure criterion for utilization facilities with the cost recovery criteria from Section 104c of the AEA.** Under this alternative, the cost recovery criteria would apply to all Class 104c utilization facility licenses. Existing Class 104c utilization facility licensees and the NRC may incur some implementation costs related to licensees demonstrating compliance with the new criteria. Some licensees may face unintended consequences from this alternative if their ability to recover the cost of owning and operating their facilities is limited by the new criteria in Section 104c of the AEA. If a licensee is unable to demonstrate compliance with the new criteria, then it will need to decrease its cost recovery or obtain a Class 103 commercial facility license, which could result in substantial costs to the licensee and NRC, or a decision by the licensee to permanently cease operation of the facility. The applicability of the 10 CFR 50.22 cost expenditure criterion to production facility licenses would not be changed.
- (4) **Amend 10 CFR 50.22 to specify that the cost recovery criteria in Section 104c of the AEA apply to utilization facility licenses issued after January 14, 2019, and that holders of Class 104c licenses for utilization facilities that were issued before January 14, 2019, have the option to meet the current cost expenditure criterion in 10 CFR 50.22 or the cost recovery criteria in Section 104c of the AEA.** Under this alternative, current licensees could select and meet the criteria best suited to their operations, and new applicants would be subject only to the new criteria established by NEIMA. The applicability of 10 CFR 50.22 to production facility licenses would not be changed.

The staff recommends Alternative 4. This alternative would enhance the clarity of the regulations, reduce the burden on applicants for Class 104c licenses, and provide a flexible approach for holders of Class 104c licenses issued before January 14, 2019.

Based on the scope of the rulemaking, the nature of Alternative 4, and feedback received on this topic at a public meeting held on September 26, 2019, the staff has sufficient technical, legal, and policy support and analysis to complete the recommended rulemaking. Accordingly, the staff recommends omitting preparation of a regulatory basis for this action and using the direct final rule process with delegated signature authority to the Executive Director for Operations. The staff anticipates this rulemaking will be non-controversial and, therefore, appropriate for the direct final rule process for three reasons.

First, the rulemaking is limited to three changes to the regulations, two of which are required to make the regulations consistent with Section 104c of the AEA and not open to interpretation (i.e., striking the words “in paragraph (b) of this section or” from 10 CFR 50.21(c) and applying the cost recovery criteria to Class 104c licenses issued after the enactment of NEIMA). The other change concerns whether to apply the cost recovery criteria to a fixed group of existing Class 104c utilization facility licensees and does not involve any technical or safety issues.

Second, Alternative 4 provides the option for existing Class 104c licensees to preserve the status quo and therefore not implement any changes or incur any costs in response to the legislative change. Licensees would incur implementation costs only if they choose to meet the cost recovery criteria in Section 104c of the AEA instead of the cost expenditure criterion in

10 CFR 50.22, and presumably a licensee would choose to do this only if it provided an overall benefit.

Third, the NRC staff conducted a public meeting on September 26, 2019, to hear the views of stakeholders on the potential impacts of the cost recovery criteria in Section 104c of the AEA on their organizations. Representatives of 19 of the 30 Class 104c utilization facility licensees that could be affected by the rulemaking attended. The meeting summary (ADAMS Accession No. ML19296C585), summarizes the views offered at the meeting by these licensees and other stakeholders. The majority opinion of those in attendance was that compliance with the cost recovery criteria should not be mandatory for holders of Class 104c licenses issued before January 14, 2019, and rulemaking Alternative 4 is consistent with this view. The NRC staff has not received any input contrary to this viewpoint from licensees that did not attend the meeting.

#### Description of Rulemaking: Scope

The scope of the rulemaking is limited to three changes to 10 CFR 50.21(c) and 50.22 to address changes to Section 104c of the AEA, as amended by NEIMA.

The rulemaking would strike the words “in paragraph (b) of this section or” from 10 CFR 50.21(c). This change would not affect any current or future licensees or applicants.

The rulemaking would amend 10 CFR 50.22 to conform with the cost recovery criteria in Section 104c of the AEA that apply to the issuance of Class 104c licenses for utilization facilities. This change would affect applicants for new Class 104c licenses for utilization facilities.

The rulemaking would also amend 10 CFR 50.22 to allow each holder of a Class 104c utilization facility license issued before January 14, 2019, to choose whether to meet the cost recovery criteria in Section 104c of the AEA or the current requirements in 10 CFR 50.22.

#### Description of Rulemaking: Preliminary Backfitting and Issue Finality Analysis

Licensees that would be affected by this rulemaking (i.e., existing holders of Class 104c licenses for research reactors and testing facilities) are not within the scope of the Commission’s backfitting and issue finality regulations, which apply to power reactor licensees and certain materials licensees.<sup>3</sup> In addition, even if holders of Class 104c licenses for research reactors and testing facilities were within the scope of the Commission’s Part 50 backfitting regulations, the rulemaking would not constitute backfitting under 10 CFR Part 50. The two elements of the rulemaking that would make 10 CFR 50.21(c) and 50.22 consistent with Section 104c of the AEA are non-discretionary agency actions and, thus, outside the purview of any backfitting provisions. The third element of the rulemaking would permit licensees to maintain the status quo (i.e., the current requirements in 10 CFR 50.22), so the NRC would not be imposing a new or changed requirement on licensees.

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<sup>3</sup> See Management Directive 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests,” dated September 20, 2019.

### Description of Rulemaking: Estimated Schedule

Initiate direct final rule—upon receipt of the Commission’s SRM.

Deliver for signature the rulemaking package, including direct final rule and companion proposed rule, to the Executive Director for Operations—12 months after the Commission’s SRM.

### Description of Rulemaking: Preliminary Priority

Using the Common Prioritization of Rulemaking prioritization methodology (ADAMS Accession No. ML18263A070), the preliminary priority for this rulemaking activity is low. Specifically, the staff determined that this rulemaking would (1) contribute indirectly toward attaining the NRC’s Safety Strategic Goal of ensuring the safe use of radioactive materials, (2) contribute moderately toward enhancing the clarity of the regulations by amending the financial criteria used to determine whether a utilization facility is licensed as a commercial facility or a research and development facility, (3) contribute significantly toward conforming the NRC’s regulations with Section 104c of the AEA (as amended by Section 106 of NEIMA), and (4) attract moderate public interest and participation. Despite the low prioritization, the staff recommends proceeding with this rulemaking given that it includes aspects of statutory conformance and would add clarity to the regulations. The staff has identified efficiencies in the conduct of the rulemaking that will minimize its impact on other higher-priority rules.

### Description of Rulemaking: Estimate of Resources

The NRC staff estimates that the recommended Alternative 4 would result in a low magnitude of cost: a net present value of (\$73,000) using a 7-percent discount rate, assuming the staff pursues a direct final rule without preparing a regulatory basis. If a standard notice and comment rulemaking, including preparing a regulatory basis, were pursued, the NRC staff estimates a moderate magnitude of cost of (\$117,000) using a 7-percent discount rate. These costs include an estimated (\$38,000) to prepare the regulatory basis and (\$79,000) to use the notice and comment rulemaking process. Alternatives 2 and 3 would have similar rulemaking costs as Alternative 4. Under Alternative 3, existing Class 104c utilization facility licensees may incur some costs to implement the new criteria. Alternative 4 is preferred to Alternatives 2 and 3 because it provides the affected licensees the greatest flexibility for compliance, including maintaining the status quo and not incurring any implementation costs.

Alternative 1 could result in affected licensees submitting requests for exemptions from the requirements in 10 CFR 50.22 if these licensees meet the cost recovery criteria in Section 104c of the AEA. Under Alternative 1, the NRC and licensees would be likely to expend resources to review and submit, respectively, exemption requests related to compliance with 10 CFR 50.22. Therefore, the recommended Alternative 4 would avoid these costs.

### Cumulative Effects of Regulation

The staff will follow its cumulative effects of regulation process by engaging with external stakeholders throughout the rulemaking. In consideration of this process during the prerulemaking phase, the staff held a public meeting on September 26, 2019, to hear from stakeholders on the potential impacts of the cost recovery criteria added to Section 104c of the AEA. Based on the views expressed at the meeting, the NRC staff determined that the recommended rulemaking alternative would likely not have a negative impact on affected

licensees. At this time, there are no known activities that will significantly affect the implementation of the recommended changes. The staff plans to hold at least one additional public meeting during the development of the direct final rule.

#### Agreement State Considerations

There are no Agreement State considerations for this rulemaking because Class 104c utilization facilities are not subject to regulation by Agreement States.

#### Guidance

The staff is currently revising NUREG-1537 to provide the implementing guidance for the draft Non-Power Production or Utilization Facility License Renewal final rule. The NRC staff will also address the new cost recovery criteria in the revision because Section 104c of the AEA (as amended by Section 106 of NEIMA) is applicable to all Class 104c non-power utilization facility licenses issued by the NRC after January 14, 2019, regardless of rulemaking undertaken by the NRC. Based on views expressed at the public meeting held on September 26, 2019, the NRC staff believes that sufficient guidance on demonstrating compliance with the new cost recovery criteria can be included in the revision of NUREG-1537. Publishing a dedicated regulatory guide in addition to revising NUREG-1537 would not be consistent with the efficiency principle of good regulation because the cost of a regulatory guide would not provide a commensurate safety benefit.

#### Advisory Committee on Reactor Safeguards Review

The staff recommends that review by the Advisory Committee on Reactor Safeguards (ACRS) is not necessary because of the strictly financial nature of the rule.

#### Committee to Review Generic Requirements Review

The staff recommends that review by the Committee to Review Generic Requirements (CRGR) is not necessary because the backfit regulations do not apply to this category of licensees, as described in the "Preliminary Backfitting and Issue Finality Analysis" section of this rulemaking plan.

#### Advisory Committee on the Medical Use of Isotopes Review

The staff recommends that review by the Advisory Committee on the Medical Use of Isotopes (ACMUI) is not necessary because the proposed rulemaking alternatives do not affect NRC regulation or licensing of medical uses of byproduct material.

#### Analysis of Legal Matters

The Office of the General Counsel has reviewed this rulemaking plan and has not identified any issues necessitating a separate legal analysis at this time.

RECOMMENDATION:

The staff recommends that the Commission approve Alternative 4: initiation of rulemaking to amend 10 CFR 50.22 and 50.21(c), using the direct final rule process and not developing a regulatory basis. The staff also recommends delegating signature authority for this action to the Executive Director for Operations.

If the Commission approves initiation of the rulemaking, in accordance with SECY-16-0042, "Recommended Improvements for Rulemaking Tracking and Reporting," dated April 4, 2016 (ADAMS Accession No. ML16075A070), the staff will update the agency's rulemaking tracking tool. The rulemaking tracking tool currently lists this rule as "rulemaking plan pending" for planning purposes and transparency on the staff's full suite of prerulemaking and rulemaking activities.

The staff also recommends that the Commission approve its recommendations on ACRS, CRGR, and ACMUI review.

RESOURCES:

The enclosure to this plan includes an estimate of the resources needed to complete this rulemaking. If the Commission approves rulemaking, the staff will apply resources to this rulemaking through its planning, budgeting, and performance management process.

COORDINATION:

The Office of the General Counsel has no legal objection to this action. The Office of the Chief Financial Officer reviewed this package and determined that it has no financial impact.

Margaret M.  
Doane

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Margaret M. Doane  
Executive Director  
for Operations

Enclosure:  
Cost Estimate for Cost Recovery  
Criteria for Research and  
Development Utilization Facilities

SUBJECT: RULEMAKING PLAN ON COST RECOVERY CRITERIA FOR RESEARCH AND DEVELOPMENT UTILIZATION FACILITIES, DATED: MAY 6, 2020

**ADAMS Accession Nos.: PKG: ML19339B572; SECY: ML19312A036:  
ENCL: ML19339B609**

\*Via E-Mail

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