

**POLICY ISSUE**  
**NOTATION VOTE**

**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary  
**FROM:** Commissioner Caputo  
**SUBJECT:** SECY-20-0063: Denial of Petition for Rulemaking Regarding Measurement Standards Used at U.S. Nuclear Power Plants (PRM-50-118; NRC-2019-0071)

Approved  Disapproved  Abstain  Not Participating

COMMENTS: Below  Attached  None

The petitioner requested that the NRC amend its regulations to require that all metrology and calibration laboratories at nuclear power plants become certified by accrediting organizations. The NRC staff evaluated the petition and determined that the issues raised do not warrant rulemaking. Although the NRC does not require nuclear power plant laboratories to be certified by accrediting bodies, the programs for safety-related measuring and test equipment calibration and training of nuclear power plant personnel performing safety-related activities must meet the requirements in 10 CFR Part 50, Appendix B, Criterion XII, "Control of Measuring and Test Equipment."

Therefore, I approve the staff's recommendation to deny the Petition for Rulemaking (PRM)-50-118, to publish the Federal Register notice, and to issue the letter as edited in the attached.

**Entered in STARS**

Yes   
No

  
\_\_\_\_\_  
**Signature**

02/22/2021  
\_\_\_\_\_  
**Date**



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

AC Edits

Michael L. Taylor  
PO Box 2563  
Monroe, MI 48161

Dear Mr. Taylor:

I am responding to the petition for rulemaking (PRM) that you submitted to the U.S. Nuclear Regulatory Commission (NRC) on December 3, 2018, as amended on July 22, 2019 (Agencywide Documents Access and Management System Accession Nos. ML19074A303 and ML19199A014, respectively). The petition, docketed by the NRC as PRM-50-118, requested that the NRC amend its regulations to require that all metrology and calibration laboratories at nuclear power plants become certified by accrediting organizations that require the use of certain measurement standards, and also to require training of all personnel and management that perform measurements at nuclear power plants.

The NRC published a notice of docketing and request for public comment in the *Federal Register* on May 15, 2019 (84 FR 21727). The public comment period closed on July 29, 2019. The NRC received ~~a total of five public comments~~ ~~submissions~~ with three commenters supporting the petition, one not clearly supporting or opposing the petition, and one (from you, the petitioner) providing grammatical corrections and minor clarifications.

The NRC is denying PRM-50-118 because the issues raised by the petition are adequately addressed by existing NRC regulations, and therefore, no amendments to the NRC's regulations are necessary. The reasons for the denial are discussed in detail in the enclosed notice, which will be published in the *Federal Register*. Upon publication of the enclosed notice, the NRC will close the docket for PRM-50-118.

The NRC tracks the status of all PRMs on its Web sites at <https://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/petitions-by-year.html> and <https://www.nrc.gov/about-nrc/regulatory/rulemaking/rules-petitions.html>. The notice and the public comments that were submitted on the petition can be found at [www.regulations.gov](http://www.regulations.gov) under Docket ID NRC-2019-0071.

M. Taylor

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This petition is considered closed. If you have any questions regarding this matter, please direct them to Solomon Sahle, by calling 301-415-3781 or by e-mailing [Solomon.Sahle@nrc.gov](mailto:Solomon.Sahle@nrc.gov).

Sincerely,

Annette L. Vietti-Cook  
Secretary of the Commission

Enclosure:  
*Federal Register* notice

**NUCLEAR REGULATORY COMMISSION**

**10 CFR Part 50**

**[Docket No. PRM-50-118; NRC-2019-0071]**

**Measurement Standards Used at U.S. Nuclear Power Plants**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Petition for rulemaking; denial.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is denying a petition for rulemaking (PRM), submitted by Mr. Michael Taylor (the petitioner), dated December 3, 2018. The petition was docketed by the NRC on March 4, 2019, and was assigned Docket No. PRM-50-118. The petitioner requested that the NRC amend its regulations regarding the measurement standards used at U.S. nuclear power plants. The NRC is denying the petition because the NRC's current regulations and oversight activities provide reasonable assurance of adequate protection of public health and safety.

**DATES:** The docket for PRM-50-118 is closed on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID NRC-2019-0071 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID NRC-2019-0071. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; email: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individuals listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[Begin Web-based ADAMS Search](#)." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that it is mentioned in the SUPPLEMENTARY INFORMATION section.

- **Attention:** The [Public Document Room \(PDR\)](#), where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via email at [PDR.Resource@nrc.gov](mailto:PDR.Resource@nrc.gov) or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Solomon Sahle, Office of Nuclear Material Safety and Safeguards, telephone: 301-415-3781, email: [Solomon.Sahle@nrc.gov](mailto:Solomon.Sahle@nrc.gov), or Greg Galletti, Office of Nuclear Reactor Regulation, telephone: 301-415-1831, email:

[Greg.Galletti@nrc.gov](mailto:Greg.Galletti@nrc.gov). Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

## **SUPPLEMENTARY INFORMATION:**

### **I. The Petition**

Section 2.802 of title 10 of the *Code of Federal Regulations* (10 CFR), “Petition for rulemaking—requirements for filing,” provides an opportunity for any interested person to petition the Commission to issue, amend, or rescind any regulation. On December 3, 2018, the NRC received a [petition for rulemaking \(PRM or petition\)](#) from Mr. Michael Taylor, as amended on July 22, 2019 (ADAMS Accession Nos. ML19074A303 and ML19199A014, respectively). The petitioner requested that the NRC amend its regulations to require that all metrology and calibration laboratories at nuclear power plants become certified by accrediting organizations that require the use of certain measurement standards. The petitioner also requested that the NRC require training of all personnel and their management that make measurements at nuclear power plants, to ensure a clear understanding of the effects of measurement standards.

The petitioner is concerned that U.S. nuclear power plants are not required to use or have internal metrology or calibration laboratories that are certified under an accrediting organization such as the American Association for Laboratory Accreditation, National Voluntary Laboratory Accreditation Program, or similar accrediting body, as a part of normal and required operations. The petitioner states that, because of this lack

of accreditation, certain important factors are not currently considered in measurements conducted at nuclear power plants, including the ratio of measurement standards to units under test. The petitioner contends that this leads to an unresolved safety issue for “Quality” (safety-related) measurements in particular. The petitioner also states that existing internal quality assurance and documents and standards currently in use for inspections and audits do not adequately address this concern.

## II. Public Comments on the Petition

### A. Overview of Public Comments

The NRC published the notice of receipt and request for public comment in the *Federal Register* on May 15, 2019 (84 FR 21727). The public comment period closed on July 29, 2019. The NRC received a total of five public comments ~~submissions~~. ~~A comment submission is a communication or document submitted to the NRC by an individual or entity, with one or more individual comments addressing a subject or issue.~~ Three comments ~~submissions~~ expressed support for the petition, one did not clearly support or oppose the petition, and one (from the petitioner) provided grammatical corrections and minor clarifications to the petition.

The NRC reviewed and considered the public comments received in making its decision to deny the PRM. The NRC response follows a short summary of each comment ~~submission~~.

### B. NRC Responses to Public Comments

**Comment:** One comment, from an anonymous individual, agrees with the petitioner that the current regulations leave margin for error and that additional regulations are necessary.

**NRC Response:** The NRC disagrees with this comment. The NRC performed an independent search of all licensee event reports and greater-than-green inspection findings since 2015 and did not identify any examples of safety issues caused by the lack of laboratory certification requirements. In addition, a licensee's calibration program ~~is required to~~must meet the requirements of Criterion XII, "Control of Measuring and Test Equipment," of ~~A~~Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR ~~P~~part 50, "Domestic Licensing of Production and Utilization Facilities." Furthermore, a licensee's compliance with the requirements of ~~A~~Appendix B to 10 CFR ~~P~~part 50 is subject to inspection by the NRC. As such, the NRC has reasonable assurance that the existing regulations provide adequate protection of public health and safety.

**Comment:** A comment from an anonymous individual stated that current internal labs in the utility industry should be required to go through the same requirements that external calibration facilities ~~have to~~must go through when calibrating and testing equipment for nuclear plants. According to this comment, it is not economically fair for the external calibration labs to pay for and go through the rigorous audits and try to compete for business when internal laboratories are not required to pay for this expensive certification. This comment suggests that this petition puts every calibration business on



an equal playing field and would ensure uniform, basic knowledge and skills prior to employment and continuing education each year after to satisfy certification renewal.

**NRC Response:** The NRC disagrees with this comment. Training requirements for nuclear power plant personnel, including calibration technicians, are covered under Criterion II, "Quality Assurance Program," of Appendix B to 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities." Meeting these requirements provides reasonable assurance that the calibration technicians will have the education, training, knowledge, and skills necessary to adequately perform their responsibilities. The economic considerations for external calibration activity facilities are outside the scope of NRC's rulemaking determination. To the extent that ~~a~~ nuclear power plant licensee chooses to use an external calibration facility, the licensee must ensure that the calibration facility meets Appendix B requirements.

**Comment:** A comment from an anonymous individual stated that any entity such as the Tennessee Valley Authority's Central Lab Calibration Services should be accredited. According to this comment, just because the Tennessee Valley Authority is a federal agency ~~doesn't~~ not mean it should ~~not~~ not have to adhere to the rules of all the other calibration services.

**NRC Response:** The NRC disagrees with this comment. When performing safety-related calibration services for nuclear power plants, Tennessee Valley Authority's Central Lab Calibration Services must meet the requirements of Criterion II of Appendix B to 10 CFR part 50. ] Meeting this regulation provides reasonable assurance of

adequate protection of public health and safety.

**Comment:** A comment from James Anderson, a private citizen, requested that the NRC not reduce time or money spent on nuclear power plants.

**NRC Response:** The NRC interprets this comment to request that the NRC not reduce its oversight or resources spent on the regulation of nuclear power plants. The NRC considers the comment to be out-of-scope of this petition.

**Comment:** The petitioner, Michael Taylor, submitted a document providing revisions to the PRM, including grammatical corrections and a few minor clarifications of the original [documentpetition](#).

**NRC Response:** The NRC considered the revised PRM submitted in this comment.

### III. Reasons for Denial

The NRC is denying the petition because the petition does not raise a significant safety or security concern that would warrant the requested changes to the NRC's regulations. To reach this determination, the staff evaluated the merits of the petition, public comments received, the immediacy of any safety concerns raised by the petition, and the NRC's relevant past decisions and current policies. Specifically, staff considered existing NRC requirements for the control of measuring and test equipment.

Although the NRC does not require nuclear power plant laboratories to be certified by accrediting organizations, their programs for safety-related measuring and test equipment calibration must meet the requirements in 10 CFR part 50, "Domestic Licensing of Production and Utilization Facilities," appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," criterion XII, "Control of Measuring and Test Equipment," and their programs are subject to NRC inspection. The NRC inspections provide additional assurance that licensees are adequately implementing the requirements of criterion XII of appendix B to 10 CFR part 50 to measure and test equipment programs through direct inspection of calibration and testing activities. These direct inspections ensure that measurement calculations are being adequately performed.

Any safety-related calibrations or measurements that are performed at metrology laboratories utilized by nuclear power plants would fall under these requirements. The requirements for the training of nuclear power plant personnel performing safety-related activities are covered by criterion II, "Quality Assurance Program," of appendix B to 10 CFR part 50. Any personnel performing safety-related calibrations in an onsite laboratory or at a metrology laboratory utilized by nuclear power plants would fall under these requirements.

In addition, the ~~petitioner did not provide specific examples where the lack of laboratory accreditation requirements resulted in a safety-significant issue or event.~~ The NRC conducted an independent search of all license event reports and greater-than-green inspection findings from 2015 onward and did not identify any examples of safety issues caused by improper calibrations of measurement and test equipment at nuclear

power plant internal laboratories or by the lack of laboratory certification requirements.

In summary, the NRC is denying the petition because the petition does not raise a significant safety or security concern. The requested amendments to NRC regulations are not necessary because existing NRC regulations and inspection procedures provide reasonable assurance of adequate protection of public health and safety.

#### **IV. Conclusion**

For the reasons cited in this document, the NRC is denying PRM-50-118. The NRC has concluded that its existing regulations provide reasonable assurance of adequate protection of public health and safety.

Dated Month XX, 20XX.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,  
Secretary of the Commission.