

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2018-0109]**

**Draft Letter to the Nuclear Energy Institute Regarding the Clarification of  
Regulatory Paths for Lead Test Assemblies**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice of availability; opportunity for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is soliciting public comments on a draft letter to the Nuclear Energy Institute (NEI) clarifying the regulatory paths for the use of lead test assemblies (LTAs). This draft letter would finalize the NRC staff's views on the preliminary positions regarding LTAs provided in a letter to NEI dated June 29, 2017. The NRC does not currently have consolidated regulatory guidance regarding the use of LTAs. Therefore, the NRC has drafted this letter to clarify its positions regarding the use of LTAs. These positions would affect light-water reactor licensees who wish to irradiate LTAs.

**DATES:** Submit comments by June 27, 2018. Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received before this date.

**ADDRESSES:** You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2018-0109**. Address questions about NRC dockets to Jennifer Borges; telephone: 301-287-9127; e-mail: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@nrc.gov). For technical questions, contact the individuals listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **Mail comments to:** May Ma, Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the **SUPPLEMENTARY INFORMATION** section of this document.

**FOR FURTHER INFORMATION CONTACT:** Jennifer Whitman, Office of Nuclear Reactor Regulation, telephone: 301-415-3253, e-mail: [Jennifer.Whitman@nrc.gov](mailto:Jennifer.Whitman@nrc.gov), or Kimberly Green, Office of Nuclear Reactor Regulation, telephone: 301-415-1627, e-mail: [Kimberly.Green@nrc.gov](mailto:Kimberly.Green@nrc.gov). Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

## SUPPLEMENTARY INFORMATION:

### I. Obtaining Information and Submitting Comments

#### A. Obtaining Information

Please refer to Docket ID **NRC-2018-0109** 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 <http://www.regulations.gov> and search for Docket ID **NRC-2018-0109**.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public Documents](#)" and then 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, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

## B. Submitting Comments

Please include Docket ID **NRC-2018-0109** in your comment submission. The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at <http://www.regulations.gov> as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

## II. Background

This draft letter clarifies the NRC staff's interpretation of Standard Technical Specification (STS) 4.2.1, "Fuel Assemblies." The first part of STS 4.2.1 places limitations on the number of fuel assemblies in the reactor core, the type of fuel that can be used, the cladding material that can be used (e.g., zircaloy or ZIRLO), and requires the use of NRC-approved codes and methods for the fuel assemblies. The last sentence of STS 4.2.1 allows for the irradiation of a limited number of LTAs that have not completed representative testing if placed in nonlimiting regions of the reactor core.

In the past, licensees have taken different approaches when conducting LTA campaigns. Some licensees obtained prior NRC approval by license amendments approving changes to Technical Specification (TS) 4.2.1 or exemptions from § 50.46, “Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors,” of title 10 of the *Code of Federal Regulations* (10 CFR), or both, for their LTA campaigns. Other licensees conducted LTA campaigns under 10 CFR 50.59, “Changes, tests, and experiments,” without prior NRC approval. This draft letter to NEI clarifies the NRC’s current interpretation of when prior NRC approval is needed for LTA campaigns. This draft letter responds to concerns from stakeholders, including NEI, that there is a lack of clarity in the regulatory requirements associated with the use of LTAs. For example, concerns were raised on the preliminary positions regarding LTAs provided in a letter to NEI dated June 29, 2017, as comments, in response to the NRC’s publication of the document, “Draft Project Plan to Prepare the U.S. Nuclear Regulatory Commission to License and Regulate Accident Tolerant Fuel” (82 FR 60633; December 21, 2017), and in a license amendment request for Byron Station, Unit 2, dated March 8, 2018.

The draft letter provides clarification on the LTA provision in STS 4.2.1; clarification on the use of approved methods for LTA campaigns; two regulatory paths for LTA campaigns; guidance on the use of NEI 96-07, Revision 1, “Guidelines for 10 CFR 50.59 Implementation,” with regard to LTAs; and a position that an exemption to the requirements in 10 CFR 50.46 is not needed solely for the insertion of LTAs.

### **III. Non-Concurrence**

An NRC staff member did not agree with some content of the draft letter to the NEI and submitted a non-concurrence on the draft letter. In accordance with the NRC's non-concurrence process, NRC management and staff worked to address the staff member's concerns, and documentation of the non-concurrence is available in ADAMS.

### **IV. Backfitting and Issue Finality**

If finalized, the letter would provide additional clarification on previous staff preliminary statements and positions regarding the use of LTAs made in a letter to NEI dated June 29, 2017. Issuance of the letter, if finalized, would not constitute backfitting as defined in 10 CFR 50.109 (the Backfit Rule) and would not otherwise be inconsistent with the issue finality provisions in 10 CFR part 52. The NRC has no current intention to impose the positions described in the draft letter on holders of current operating licenses or combined licenses.

## V. Availability of Documents

The documents identified in the following table are available to interested persons through one or more of the following methods, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
Draft letter from U.S. Nuclear Regulatory Commission to Nuclear Energy Institute, Re: Clarification of Regulatory Paths for Lead Test Assemblies, dated May 31, 2008.	ML18100A045
Letter from Dr. Mirela Gavrilas, U.S. Nuclear Regulatory Commission, to Mr. Andrew Mauer, Nuclear Energy Institute, Re: Response to Nuclear Energy Institute Letter Concerning the Regulatory Path for Lead Test Assemblies, dated June 29, 2017.	ML17150A443
NUREG-1430, Standard Technical Specifications, Babcock and Wilcox Plants, Volume 1, Revision 4.0.	ML12100A177
NUREG-1431, Standard Technical Specifications, Westinghouse Plants, Volume 1, Revision 4.0.	ML12100A222
NUREG-1432, Standard Technical Specifications, Combustion Engineering Plants, Volume 1, Revision 4.0.	ML12102A165
NUREG-1433, Standard Technical Specifications, General Electric BWR/4 Plants, Volume 1, Revision 4.0.	ML12104A192
NUREG-1434, Standard Technical Specifications, General Electric BWR/6 Plants, Volume 1, Revision 4.0.	ML12104A195
Letter from Andrew Mauer, Nuclear Energy Institute, to Dr. Mirela Gavrilas, U.S. Nuclear Regulatory Commission, Re: Regulatory Path for Introduction of Lead Test Assemblies in Commercial Nuclear Reactors, dated May 19, 2017.	ML18038B080
Letter from David M. Gullott, Exelon Generation Company, LLC, to U.S. Nuclear Regulatory Commission, Re: License Amendment Request to Utilize Accident Tolerant Fuel Lead Test Assemblies, Byron Station, Unit 2, dated March 8, 2018.	ML18067A431
NEI 96-07, Revision 1, Guidelines for 10 CFR 50.59 Implementation, dated November 2000.	ML003771157
Non-Concurrence Form, dated May 31, 2018.	ML18151B016

The NRC may post materials related to this document, including public comments, on the Federal Rulemaking Web Site at <http://www.regulations.gov> under Docket ID **NRC-2018-0109**. The Federal Rulemaking Web Site allows you to receive alerts when changes or additions occur in a docket folder. To subscribe: (1) navigate to the docket folder (**NRC-2018-0109**); (2) click the “Sign up for E-mail Alerts” link; and (3) enter your e-mail address and select how frequently you would like to receive e-mails (daily, weekly, or monthly).

Dated at Rockville, Maryland, this 4<sup>th</sup> day of June, 2018.

For the Nuclear Regulatory Commission.

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Joseph G. Giitter, Director,  
Division of Operating Reactor Licensing,  
Office of Nuclear Reactor Regulation.