



June 25, 2018

No. GL18-011

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

Subject: Comments on Letter to P. B. Cowan (Nuclear Energy Institute),
"Clarification of Regulatory Paths for Lead Test Assemblies" (Docket ID
NRC-2018-0109) (*Federal Register* Notice 83 FR 26503)

The Nuclear Regulatory Commission (NRC), through the Federal Register Notice (83 FR 26503) and Docket ID: NRC-2018-0109, issued for public comment draft letter to P. B. Cowan (Nuclear Energy Institute), "Clarification of Regulatory Paths for Lead Test Assemblies." Dominion Energy Services, Inc. (Dominion Energy) appreciates the opportunity to comment on the letter, as described in the subject *Federal Register* notice.

The Nuclear Energy Institute (NEI) submitted comments to the NRC regarding this subject draft letter. Dominion Energy endorses NEI's comments and would appreciate the NRC's consideration of the following.

Dominion Energy agrees with the Staff position described in the draft letter that lead test assemblies (LTAs) are a necessary and important step in the fuel development process and have led to safety improvements in the design of nuclear fuel. LTAs are fuel assemblies that contain new design features or materials for which additional data is needed to support batch loading and validation of codes and methods.

Dominion Energy further agrees LTAs inserted in non-limiting locations should not establish core operating limits. Confirmation of the non-limiting nature of the LTA locations is done through an evaluation that finds that the quantity and placement of LTAs do not invalidate the final safety analysis report (as updated) (UFSAR) Chapter 15 transient and accident analyses. The evaluation of the LTAs should be performed using approved methods to the extent practical. Dominion Energy agrees that it may not be possible to use approved methods for LTAs as LTA campaigns are often used to collect the data necessary to license methods. When approved methods are not available, evaluations are performed using sound engineering judgment and analytical codes and methods that reflect well-established engineering practices.

Dominion Energy requests that the NRC consider the following comments associated with the draft letter:

SUNSI Review Complete
Template = ADM-013
E-RIDS=ADM-03
ADD= Sihan Ding, Kimberly Green & Jan
Burkhardt

COMMENT (128)
PUBLICATION DATE: 6/7/2018
CITATION # 83 FR 26503

- On page 3 of the draft letter the NRC indicates that LTA programs have historically "...ranged from a few rods up to 2 percent of the core..." Dominion Energy's Surry Power Station Unit 1 and Millstone Power Station Unit 3 are currently operating with eight LTAs, which is greater than 2 percent of the core. The use of eight LTAs ensures the data obtained from the LTAs post-operation encompasses anticipated operational strategies to the fullest possible extent. LTA programs using eight assemblies allow more extensive out-of-reactor inspections and testing to proceed on four LTAs while extended operating experience is obtained with the other four LTAs. Dominion Energy wishes to ensure that the final letter does not establish a defacto upper allowance on a "limited number" of LTAs that may be loaded into a core.

Consider revising the text as follows:

Historically, LTA campaigns have ranged from a few rods to ~~2 percent of the core~~ 8 fuel assemblies, depending on the nature of the design and the degree of prior characterization of the LTAs' performance.

- On page 5 of the draft letter, the NRC indicates that "... approved methods should be used wherever possible ..." for the evaluation of LTAs. The NRC acknowledges that approved methods for the LTA may not exist and indicates that a conservative evaluation of the LTAs using the approved codes and methods for the core should be used.

Consider revising the sentence that begins "in those instances..." as follows:

In those instances, the licensee should perform a conservative evaluation of the LTAs ~~for the core using sound engineering judgment and analytical codes and methods that reflect well-established engineering practices.~~

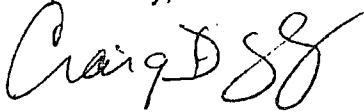
- Dominion Energy believes that a point of clarification related to the cited Millstone LTA campaign on page 4 of the draft letter is needed. NRC approval of the cited Millstone LTA campaign only approved an element of the LTA campaign. NRC approval was received to allow operation of a single LTA to a maximum lead rod average burnup in excess of the allowed core limits.

Consider clarifying the text as follows:

These LTA campaigns included design elements that exceeded established limitations on impacted fundamental core dynamics and physics predictions, accident progression, and/or the radiological source term such that core operating limits, UFSAR Chapter 15 transient and accident analyses, or approved analytical methods were no longer applicable and/or bounding.

If you have any questions, please contact Wanda Craft at (804) 273-4687 or wanda.d.craft@dominionenergy.com.

Respectfully,

A handwritten signature in black ink, appearing to read "Craig D. Sly". The signature is written in a cursive style with a large, stylized "S" at the end.

Craig D. Sly, Manager
Nuclear Regulatory Affairs
Dominion Energy Services, Inc. for
Virginia Electric and Power Company, and
Dominion Energy Nuclear Connecticut, Inc.