



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

May 22, 2019

MEMORANDUM TO: Daniel H. Dorman  
Deputy Executive Director for Reactor  
and Preparedness Programs  
Office of the Executive Director of Operations

FROM: Ho K. Nieh, Director *(/RA/ Michele G. Evans for)*  
Office of Nuclear Reactor Regulation

SUBJECT: PLAN FOR ADDRESSING TASKINGS RELATED TO  
10 CFR 50.59 INSPECTIONS OF ACCIDENT TOLERANT FUEL  
LEAD TEST ASSEMBLIES

By memorandum dated March 14, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19073A280), the Deputy Executive Director for Reactor and Preparedness Programs (DEDR) issued taskings that resulted from his review of a Differing Professional Opinion (DPO) appeal concerning the regulatory path for accident tolerant fuel (ATF) lead test assemblies (LTAs) (DPO-2018-002; ADAMS Accession No. ML19053A705). Specifically, the DEDR tasked the Office of Nuclear Reactor Regulation (NRR) to:

1. Ensure the implementation of two Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.59 evaluation inspections for ATF LTA campaigns by midyear 2020.
2. Provide the documentation of these inspections in quarterly reports.
3. Demonstrate the effective coordination between the regions and headquarters staff in these reviews.

In a letter to the Nuclear Energy Institute (NEI), "Response to Nuclear Energy Institute Letter Concerning Regulatory Path for Lead Test Assemblies" from Dr. Mirela Gavrilas, U.S. Nuclear Regulatory Commission (NRC), to Mr. Andrew Mauer, NEI, dated June 29, 2017 (ADAMS No. ML17150A443), the NRC staff discussed its regulatory position regarding Technical Specifications (TSs) and 10 CFR 50.59. On May 31, 2018, the NRC issued for public comment a letter to NEI, "Clarification of Regulatory Path for Lead Test Assemblies," from Brian E. Holian, NRC, to Ms. Pamela B. Cowan, NEI (ADAMS Accession No. ML18100A045). The staff is currently addressing public comments received and updating the letter accordingly. When issued, this letter will finalize the NRC staff's positions on the regulatory path for ATF LTAs, including the use of 10 CFR 50.59, TS 4.2.1, "Fuel Assemblies," and exemptions from 10 CFR 50.46(a)(1)(i), "Acceptance criteria for emergency core cooling systems for light-water nuclear power reactors." Upon issuance of this letter, the NRC staff will be well positioned to conduct routine inspections for ATF LTA campaigns completed by licensees under 10 CFR 50.59.

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In response to the March 14, 2019, tasking, the staff is seeking your approval on the following plan, which outlines coordination and inspection activities:

1. The Division of Inspection and Regional Support (DIRS) will interface directly with the Regional Division of Reactor Projects and Division of Reactor Safety directors to identify licensees that have conducted LTA loads using the 10 CFR 50.59 process. The staff in DIRS will also communicate with staff in the Division of Safety Systems (DSS) and the Division of Operating Reactor Licensing (DORL) to maintain an awareness of future plans for ATF LTA campaigns (DSS collaborates closely with the U.S. Department of Energy as part of the ATF Project Plan, "Project Plan to Prepare the U.S. Nuclear Regulatory Commission to Efficient and Effective License Accident Tolerant Fuels" (ADAMS No. ML18261A414), and often obtains early information on ATF implementation approaches).
2. Regional inspectors will use Inspection Procedure (IP) 71111.18, "Plant Modifications" or 71111.17T, "Evaluations of Changes, Tests, and Experiments," (if the inspection is part of a triennial team inspection) and the finalized letter on regulatory paths for ATF LTAs in their 10 CFR 50.59 inspections.
3. Regional inspectors will seek guidance from staff in DIRS (specifically, the ROP [Reactor Oversight Process] Support and Generic Communications branch (IRGB)) on any 10 CFR 50.59 questions. IRGB will coordinate technical questions on ATF LTAs with DSS (specifically, the Reactor Systems Branch) and licensing basis questions with the appropriate branch in DORL. Consistent with "Clarification of Regulatory Path for Lead Test Assemblies," the inspection will confirm the use of NRC-approved methods in the Core Operating Limits Report (COLR). A TS amendment may be needed if an analytical method is not listed in the COLR or meets the criteria as discussed in the "Clarification of Regulatory Path for Lead Test Assemblies".
4. Regional inspectors will document the results of these inspections in the plant-specific quarterly integrated reports.
5. Edwin I. Hatch Nuclear Plant, Unit 1, and Vogtle Electrical Generating Plant, Unit 2, have completed ATF LTA loads using 10 CFR 50.59 in March 2018 and March 2019, respectively. Clinton Power Station, Unit 1, and Arkansas Nuclear One (ANO), Unit 2, plan to complete ATF LTA loads using 10 CFR 50.59 in October 2019. Accordingly, the staff plans to conduct the following inspections to meet the intent of this tasking memo and to distribute inspections equally across the NRC's regional offices, to the extent practical:
  - a. Region II: Vogtle (estimated for 3<sup>rd</sup> quarter, 2019)
  - b. Region III: Clinton (estimated for 4<sup>th</sup> quarter, 2019)
  - c. Region IV: ANO (estimated for 4<sup>th</sup> quarter, 2019)

Because none of these sites are scheduled for a an IP71111.17T, "Evaluations of Changes, Tests, and Experiments" team inspection in 2019 and 2020, the inspections will need to be conducted under IP 71111.18, "Plant Modifications."

Per your direction in the March 14, 2019, tasking memo, DIRS staff, with assistance from DSS and the regional inspectors, will provide a briefing to you on the results of these inspections.

cc: D. Lew, RI RA  
C. Haney, RII RA  
D. Roberts, RIII RA  
S. Morris, RIV RA

Approved:  /RA/ 05/30/19  
Daniel H. Dorman  
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INSPECTIONS OF ACCIDENT TOLERANT FUEL LEAD TEST ASSEMBLIES  
DATED

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PMcKenna

**ADAMS Package Accession No.: ML19123A115 \*concurred via email**

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