



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 EAST LAMAR BOULEVARD  
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April 3, 2020

MEMORANDUM TO: Andrea Kock, Director  
Division of Fuel Management  
Nuclear Material Safety and Safeguards

THROUGH: Mary Muessle, Director  
Division of Nuclear Materials Safety

FROM: Greg Warnick, Chief  
Reactor Inspection Branch

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION LESSONS  
LEARNED FROM CANISTER MISALIGNMENT EVENT

This memorandum serves to summarize Region IV staff's lessons learned assessment, which was completed to evaluate and review the effectiveness of agency's oversight at San Onofre Nuclear Generating Station (SONGS) Independent Spent Fuel Storage Installation (ISFSI) relating to the licensee's (Southern California Edison Company's (SCE)) canister misalignment event that took place August 3, 2018. The evaluation was conducted to determine if the Nuclear Regulatory Commission's (NRC's) processes to inspect, evaluate, and communicate the licensee's event, performance, and corrective actions were appropriate and if any improvements should be captured into the NRC's ISFSI Program and Region's policies.

In summary, the evaluation determined that:

- 1) The NRC's ISFSI Inspection Program and the increased oversight implemented in accordance with Inspection Manual Chapter (IMC) 2690, "Inspection Program for Dry Storage of Spent Reactor Fuel at ISFSIs and for 10 CFR Part 71 Transportation Packages," was effective in assessing SCE's performance and ensuring appropriate agency focus was placed on the SONGS ISFSI to ensure that performance problems were identified and addressed.
- 2) Region IV staff identified eight recommendations that would enhance NRC programs and processes to further ensure that performance issues at ISFSI's are identified, assessed, and addressed in a timely, transparent, and thorough manner, with focus on safety.

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Two of the eight recommendations are significant changes that fell within the scope of the NRC's recent ISFSI Inspection Enhancement Initiative working group and were adopted in full, and therefore, no additional actions are being proposed. The remaining six recommendations are lower level operational improvement items that were not within the scope of the working group and were considered improvement opportunities. Therefore, action items have been created for these to consider to further enhance the ISFSI Oversight Process.

The recommendations incorporated into the ISFSI Inspection Enhancement Initiative include:

**Recommendation 1:** Consider revising IMC 2690, Table A-2, to require additional oversight when a licensee is performing continuous off-loading campaign after cessation of Part 50 operations. A suggested frequency could be another inspection each quarter during a continuous off-loading campaign. This enhancement would require and provide additional resources for more frequent inspections when licensees are performing extended loading campaigns. Revising IMC-2690 would provide for increased regulatory oversight of licensee operations and create an opportunity to review changes that occur during an extended spent fuel loading campaign.

**Recommendation 2:** Consider enhancing the guidance in the applicable inspection procedures for: 1) In-depth review of procedures after dry-run changes have been incorporated, 2) systematic approach to training-based program reviews, 3) corrective action program reviews, and 4) design change reviews. These guidance enhancements for the inspection procedures should assist in focusing inspector reviews in these critical areas.

Actions Taken: These recommendations fell within the scope of the ISFSI Inspection Enhancement Initiative working group and were adopted in full.

Other lower level recommendations under review are as follows:

**Recommendation 3:** Consider more ISFSI inspector training under IMC 1246, B03, "Training Requirements and Qualification Journal for Independent Spent Fuel Storage Installation Inspector," to add: 1) 50.59/72.48 training courses, and 2) a systematic approach to training-based training course. Additional training in these subject areas would also assist inspectors in reviewing and assessing the licensees' programs and operations.

**Recommendation 4:** Consider revising NUREG 1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73," to include descriptions and examples to cover 10 CFR 72.75 reporting requirements. Guidance and examples for Part 72 notifications would improve a license holders' ability to adequately determine if a notification to the NRC is required.

**Recommendation 5:** Consider revising the NRC Enforcement Policy to include ISFSI specific examples.

**Recommendation 6:** Consider establishing a policy or process that could dedicate Division of Fuel Management support outside the technical assistance request process.

**Recommendation 7:** Consider looking at an organizational practice that would dedicate more resources to establish a team taskforce or a dedicated branch for a single site where a significant event has occurred.

**Recommendation 8:** Consider establishing regional guidance to document and capture learned guidance in: 1) setup and conduct of webinars, 2) setup of use of the NRC's public website spotlight page, 3) learned enhancements to capture and address questions from the public, 4) directions for general improved staff engagement with the public, 5) learned enhancements on Congressional briefs, 6) learned enhancements for higher level NRC briefs.

Actions to be Taken: These six recommendations will be discussed for policy, guidance, organizational, and training changes with the relevant offices and regions by the end of Fiscal Year 2020.

SONGS LESSONS LEARNED FROM CANISTER MISALIGNMENT EVENT DATED – April 3, 2020

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