



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

December 8, 2017

**LICENSEE:** Duke Energy Progress, LLC; Southern Nuclear Operating Company, Inc.; and Entergy Operations, Inc.

**FACILITIES:** Vogtle Electric Generating Plant, Units 1 and 2; Shearon Harris Nuclear Power Plant Unit 1; and Grand Gulf Nuclear Station Unit 1

**SUBJECT:** SUMMARY OF NOVEMBER 8, 2017, TELECONFERENCE WITH NUCLEAR ENERGY INSTITUTE, DUKE ENERGY PROGRESS, LLC, SOUTHERN NUCLEAR OPERATING COMPANY, INC., AND ENTERGY OPERATIONS, INC. TO DISCUSS DEVELOPMENT OF TORNADO MISSILE EVALUATOR METHODOLOGY (EPIDS L-2017-LLA-0350, L-2017-LLA-0355, AND L-2017-LLA-0371)

On November 8, 2017, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a Category 1 public teleconference with the Nuclear Energy Institute (NEI); Duke Energy Progress, LLC; Southern Nuclear Operating Company, Inc.; and Entergy Operations, Inc., at NRC Headquarters, 11555 Rockville Pike, One White Flint North, Rockville, Maryland. The purpose of the meeting was to discuss NRC's feedback in support of the development of the NEI's Tornado Missile Risk Evaluator Tool described in Revision 0 of NEI 17-02, "Tornado Missile Risk Evaluator (TMRE) Industry Guidance Document." This document was provided in support of a previous meeting and is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML17181A307. The industry's presentation is available in ADAMS under Accession No. ML17318A162.

#### BACKGROUND

In a July 6, 2017, public meeting<sup>1</sup> with the NRC staff, NEI provided an overview of the TMRE development and planned schedule for receipt of pilot plant amendments and eventual submittal or a final TMRE industry implementation guide. The NRC had a number of comments and questions during industry's presentation, including how the TMRE process categorized elevated versus near-ground targets, as well as how missiles and targets were categorized. The NRC also indicated that it had a strong interest in how licensees categorized the penetrations as too small to exclude from consideration in the TMRE calculation. In an August 17, 2017, public meeting,<sup>2</sup> the discussion included preliminary feedback regarding NEI 17-02, Revision 0.

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<sup>1</sup> Meeting summary available in ADAMS under Accession No. ML17207A064.

<sup>2</sup> Meeting summary available in ADAMS under Accession No. ML17244A074.

## DISCUSSION

This meeting focused on specific NRC feedback items related to concerns regarding robust missiles and targets, as well as the accuracy of various tables in Appendices B and C of Revision 0 to NEI 17-02. It was indicated that some of the feedback provided by the NRC staff, such as revisions to Appendix B of NEI 17-02, was already integrated into Revision 1 of NEI 17-02 that was referenced as part of the Vogtle, Harris, and Grand Gulf submittals. Slide 8 of NEI's presentation describes an NRC staff concern with the assumption of the damage from steel missiles on steel systems, structures, or components. It was indicated that two failure modes were reviewed and the information did not change the assumption, but more information justifying the steel damage assumption would be provided in Revision 2 of NEI 17-02. The discussion beginning with Slide 11 of NEI's presentation focused on the perforation thickness for different targets. The NRC staff questioned the results and/or the accuracy of several evaluations of discussion in Appendix C. It was indicated that the identified issues would be reviewed and in some cases narratives expanded, but also the Revision 2 to NEI 17-02 would have a discussion reiterating the Appendix C is provided to support methodology approval and is not intended to be used to implement the methodology, if approved.

Slide 28 of NEI's presentation provided a version of Table B-17 from Revision 0 to NEI 17-02. The NRC staff questioned whether it had been established that the table was bounding in all cases. It was indicated that the discussion would be expanded to establish that the numbers are sufficiently representative.

Slide 33 of NEI's presentation outlined the remaining NRC feedback items and questioned when additional meetings would occur. The NRC staff reiterated that public meetings to address technical issues would be scheduled taking into account available NRC resources, and at whatever periodicity needed by the NRC technical staff to support an efficient and effective review of the pilot submittals. Given that the intent of the pilots is to explore issue related to the methodology, the NRC staff indicated that the most efficient opportunity to reengage is likely after the conduct of an audit, should one be needed, or the generation of any requests for additional information.

Members of the public did listen to the teleconference. No public Meeting Feedback forms nor comments that required additional NRC staff action were received.

Sincerely,

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Eva A. Brown, Senior Project Manager  
Special Projects and Process Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-400, 50-416, 50-424  
and 50-425

Enclosure:  
List of Attendees

cc: Listserv

ATTENDEES

U.S. NUCLEAR REGULATORY COMMISSION

NOVEMBER 8, 2017, PUBLIC TELECONFERENCE REGARDING

TORNADO RISK EVALUATOR METHODOLOGY

DOCKET NOS. 50-400, 50-416, 50-424, AND 50-425

U. S. NUCLEAR REGULATORY COMMISSION

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Enclosure

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**ADAMS Accession No.: ML17340A061**

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