



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

March 5, 2018

LICENSEE: Entergy Operations, Inc.

FACILITY: Waterford Steam Electric Station, Unit 3

SUBJECT: SUMMARY OF FEBRUARY 8, 2018, PUBLIC MEETING WITH ENTERGY OPERATIONS, INC., REGARDING PLANNED LICENSE AMENDMENT REQUEST TO REVISE THE WATERFORD STEAM ELECTRIC STATION, UNIT 3 UPDATED FINAL SAFETY ANALYSIS REPORT SECTION 15.4.3.1 (EPID L-2017-LRM-0068)

On February 8, 2018, a Category 1 public teleconference was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Entergy Operations, Inc. (Entergy, the licensee). The purpose of the meeting was to discuss with NRC staff a planned license amendment request (LAR) to revise Section 15.4.3.1, "Inadvertent Loading of a Fuel Assembly into the Improper Position," of the Updated Final Safety Analysis Report (UFSAR) for Waterford Steam Electric Station, Unit 3 (Waterford 3). The meeting notice and agenda dated January 26, 2018, are available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML18037B112. The licensee provided a slide presentation, which is available at ADAMS Accession No. ML18037B110. A list of attendees at the meeting is enclosed.

During the meeting, the licensee described how the planned LAR would request a revision of Section 15.4.3.1 of the Waterford 3 UFSAR to reflect the use of Next Generation Fuel and integrated fuel burnable absorbers (IFBAs). Use of IFBAs was implemented at Waterford 3 under License Amendment No. 210, issued by letter dated October 6, 2006 (ADAMS Accession No. ML061930421). License Amendment No. 214 issued by letter dated April 15, 2008 (ADAMS Accession No. ML080880014), and License Amendment No. 215 issued by letter dated April 16, 2008 (ADAMS Accession No. ML080380005), also support the use of Next Generation Fuel and IFBAs. Subsequently, since the issuance of these amendments, the licensee discovered that the fuel misload analysis described in Section 15.4.3.1 of the Waterford 3 UFSAR was no longer bounding due to the presence of IFBAs. The licensee has since maintained operability through cycle-specific fuel misload analyses and administratively controlled compensatory measures to ensure that incore instrumentation is able to detect a fuel failure or fuel misload.

The licensee's planned LAR to revise UFSAR Section 15.4.3.1 would include the potential for fuel failure and account for the propagation of departure from nucleate boiling. The licensee plans to use the ANC neutronics code, which was approved for use at Waterford 3 in License Amendment No. 200 issued by letter dated May 9, 2005 (ADAMS Accession No. ML051290368). The Waterford 3 UFSAR categorizes the fuel misload event as a limiting fault. The licensee stated that adverse effects associated with fuel failure are bounded by the adverse effects from a more severe event within the same event category (i.e., excess load caused by a loss of alternating current (AC) power). The licensee also stated that dose consequences associated with fuel failure would remain within limit, approved by License

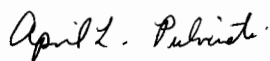
Amendment No. 198, which was issued in a letter dated March 29, 2005 (ADAMS Accession No. ML050890248). As a precedent, the licensee cited a similar license amendment issued to Palo Verde Nuclear Generating Station, Units 1, 2, and, 3, by letter dated January 23, 2018 (ADAMS Accession No. ML17319A107).

During the meeting, NRC staff recommended that the LAR submittal address the following items:

- Describe how the licensee determined that the consequences of a fuel misload were bounded by a loss of AC event. What is the delta (difference) between the consequences of a fuel misload and the consequences of a loss of AC event?
- Discuss the impact that changing input assumptions will have on the associated safety margins.
- Discuss how the assumptions in the proposed revised analysis follow from specifications in the Technical Requirements Manual, particularly with respect to the detectability of postulated misloading pairs.
- Include calculations, or references to calculations that support the proposed revised analysis of fuel misload.

The licensee stated that the planned LAR is scheduled to be submitted on or before March 15, 2018. No regulatory decisions were reached at this meeting. No member of the public provided comments to the NRC staff after the business portion of the meeting and, thus, no Public Meeting Feedback forms were received.

Please direct any inquiries to me at 301-415-1390 or by e-mail at April.Pulvirenti@nrc.gov.



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Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosure:
List of Attendees

cc: Listserv

LIST OF ATTENDEES

FEBRUARY 8, 2018, PUBLIC MEETING WITH ENTERGY OPERATIONS, INC.

REGARDING INADVERTANT LOADING OF A FUEL ASSEMBLY

INTO THE IMPROPER POSITION

FOR WATERFORD STEAM ELECTRIC STATION, UNIT 3

U.S. Nuclear Regulatory Commission

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Fred Forsaty
Jennifer Whitman
Robert Pascarelli
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John Jarrell
Leia Milster
Marcel Provensal
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William Steelman
David Viener
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Jeff Brown
Amy Miller

Public

None

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ADAMS Accession No. ML18059A015

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