



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

December 9, 2016

Site Vice President  
Entergy Operations, Inc.  
Waterford Steam Electric Station, Unit 3  
17265 River Road  
Killona, LA 70057-3093

SUBJECT: WATERFORD STEAM ELECTRIC STATION UNIT 3 - REQUEST FOR  
ALTERNATIVE TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS  
CODE FOR OPERATION AND MAINTENANCE OF NUCLEAR POWER  
PLANTS REGARDING INSERVICE TEST FREQUENCY (CAC NO. MF8270)

Dear Sir:

By letter dated August 10, 2016 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML16224A793), Entergy Operations, Inc. (Entergy, the licensee), submitted for approval to the U.S. Nuclear Regulatory Commission (NRC) an alternative test plan (Relief Request W3-RR-2016-1), in lieu of certain inservice testing (IST) requirements of the 2001 Edition through 2003 Addenda of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) for the IST program for Waterford Steam Electric Station, Unit 3 (Waterford 3). Specifically, the licensee requested to adopt approved Code Case OMN-20, "Inservice Test Frequency," at Waterford 3 during the third 10-year IST program interval.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(z)(2), the licensee requested to use the proposed alternative on the basis that complying with the current ASME OM Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The NRC staff has reviewed the subject request W3-RR-2016-1 and concludes, as set forth in the enclosed safety evaluation, that Entergy has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2) for this alternative. Therefore, pursuant to 10 CFR 50.55a(z)(2), the NRC staff authorizes the proposed alternative request for the remainder of the third 10-Year IST program interval at Waterford 3, which is currently scheduled to end November 30, 2017, or until Code Case OMN-20 is incorporated into a future revision of Regulatory Guide 1.192, referenced by a future revision of 10 CFR 50.55a, whichever occurs first.

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

If you have any questions, please contact the Project Manager, April Pulvirenti at 301-415-1390 or via e-mail at [April.Pulvirenti@nrc.gov](mailto:April.Pulvirenti@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas A. Broaddus". The signature is stylized and cursive.

Douglas A. Broaddus, Acting Chief  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosure:  
Safety Evaluation

cc w/encl: Distribution via Listserv



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST FOR ALTERNATIVE RELATED TO THE

THIRD 10-YEAR INTERVAL INSERVICE TESTING PROGRAM

ENTERGY OPERATIONS, INC.

WATERFORD STEAM ELECTRIC STATION, UNIT 3

DOCKET NO. 50-382

1.0 INTRODUCTION

By letter dated August 10, 2016 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML16224A793), Entergy Operations, Inc. (Entergy, the licensee), submitted for approval to the U.S. Nuclear Regulatory Commission (NRC) an alternative test plan (Relief Request W3-RR-2016-1), in lieu of certain inservice testing (IST) requirements of the 2001 Edition through 2003 Addenda of the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code) for the IST program for Waterford Steam Electric Station, Unit 3 (Waterford 3).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 50.55a(z)(2), the licensee requested to use the proposed alternative on the basis that complying with the current ASME OM Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. The proposed alternative is Code Case OMN-20, "Inservice Test Frequency," which addresses testing periods for pumps and valves specified in ASME OM Division 1, Section IST, 2009 Edition through OMa-2011 Addenda, and all earlier editions and addenda of ASME OM Code. The licensee proposes to adopt Code Case OMN-20.

2.0 REGULATORY EVALUATION

The regulation in 10 CFR 50.55a(f), "Inservice testing requirements," requires, in part, that IST of certain ASME Code Class 1, 2, and 3 components must meet the requirements of the ASME OM Code and applicable addenda, except where alternatives have been authorized pursuant to 10 CFR 50.55a(z)(1) or 10 CFR 50.55a(z)(2).

The regulations in 10 CFR 50.55a(z), state, in part, that alternatives to the requirements of 10 CFR 50.55a(f) may be authorized by the NRC if the licensee demonstrates that: (1) the proposed alternative provides an acceptable level of quality and safety, or (2) compliance with

Enclosure

the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Based on the above, and subject to the NRC's findings with respect to authorizing the proposed alternatives to the ASME OM Code given below, the NRC staff concludes that regulatory authority exists for the licensee to request and the Commission to authorize the alternatives requested by the licensee.

### 3.0 TECHNICAL EVALUATION

#### 3.1 Applicable Code Edition and Addenda

The licensee proposes to adopt approved Code Case OMN-20, "Inservice Test Frequency," at Waterford 3 during the third 10-year IST program interval, which is scheduled to end on November 30, 2017. This Code Case applies to the test frequency requirements for pumps and valves applicable to ASME OM Division 1, Section IST 2009 Edition through Oma-2011 Addenda and all editions and addenda of ASME OM Code. The OMN-20 discussions for this alternative refer to NUREG-1432, "Standard Technical Specifications – Combustion Engineering Plants," Volume 1, Revision 4 (ADAMS Accession No. ML12102A165), SR numbering (SR 3.0.2). The equivalent Waterford 3 SR is 4.0.2.

The applicable ASME OM Code edition and addenda for the Waterford 3 third 10-year IST program interval is the 2001 Edition through the 2003 Addenda. The proposed alternative is requested for the current 10-year IST program interval or until Code Case OMN-20 is incorporated into a future revision of Regulatory Guide 1.192, referenced by a future revision of 10 CFR 50.55a, whichever occurs first.

#### 3.2 Proposed Alternative

In Regulatory Information Summary (RIS) 2012-10, "NRC Staff Position on Applying Surveillance Requirements 3.0.2 and 3.0.3 to Administrative Controls Program Tests," dated August 23, 2012 (ADAMS Accession No. ML12079A393), and Enforcement Guide Memorandum 2012-001, "Dispositioning Noncompliance with Administrative Controls Technical Specifications Programmatic Requirements that Extend Test Frequencies and Allow Performance of Missed Tests," (ADAMS Accession No. ML11258A243), the NRC stated that licensees would no longer be permitted to apply SR 3.0.2 (equivalent to Waterford 3 SR 4.0.2) to the IST Program. Code Case OMN-20, which provides similar allowances, was approved as an alternative which provides an equivalent level of safety. Specifically, Code Case OMN-20 provides an allowance to extend the IST testing periods by up to 25% for testing periods up to and including 2 years, and by up to six months for IST testing periods of greater than 2 years.

### 3.3 NRC Staff Evaluation

In an application dated July 25, 2016, (ADAMS Accession No. ML16207A532), the licensee also requested a license amendment to revise the Technical Specifications (TSs) to adopt Technical Specification Task Force (TSTF) Traveler TSTF-545, "TS Inservice Testing Program Removal & [and] Clarify SR [Surveillance Requirement] Usage Rule Application to Section 5.5 Testing." The staff is reviewing and processing this license amendment request separately from the requested alternative to the ASME OM Code.

Historically, licensees have applied, and the NRC staff has accepted, the standard TS definitions for IST intervals (including allowable interval extensions) to ASME OM Code-required testing. (Reference NUREG-1482, "Guidelines for Inservice testing at Nuclear Power Plants: Inservice Testing of Pumps and Valves and Inservice Examination and Testing of dynamic Restraints (Snubbers) at Nuclear Power Plants – Final Report," Revision 2, Section 3.1.3, "Scheduling of Inservice Tests" ADAMS Accession No. ML13295A020). Recently, the NRC staff reconsidered the allowance of using TS testing intervals and interval extensions for IST not associated with TS SRs. As noted in Regulatory Issue Summary 2012-10, the NRC determined that programmatic test frequencies cannot be extended in accordance with the TS SR 4.0.2. This includes all IST described in the ASME OM Code not specifically required by the TS SRs. As noted earlier, SR 3.0.2 from RIS 2012-10 is equivalent to Waterford 3 SR 4.0.2.

Following this development, the NRC staff sponsored and co-authored an ASME OM Code inquiry and Code case to modify the ASME OM Code to include TS-like test interval definitions and interval extension criteria. The resultant ASME Code Case OMN-20 was approved by the ASME Operation and Maintenance Standards Committee on February 15, 2012, with the NRC representative voting in the affirmative. ASME Code Case OMN-20 was subsequently published in conjunction with the ASME OM Code, 2012 Edition. The licensee proposes to adopt ASME Code Case OMN-20 at Waterford 3.

The NRC staff has determined that requiring the licensee to meet the ASME OM Code requirements, without an allowance for defined frequency and frequency extensions for IST of pumps and valves would cause a loss of operational flexibility for meeting ASME OM Code requirements and result in a hardship without a compensating increase in the level of quality and safety. Based on the prior acceptance by the NRC staff of the similar TS test interval definitions and interval extension criteria, the staff finds that implementation of the test interval definitions and interval extension criteria contained in ASME OM Code Case OMN-20 is acceptable. Allowing usage of ASME Code Case OMN-20 provides reasonable assurance of operational readiness of pumps and valves subject to the ASME OM Code IST.

### 4.0 CONCLUSION

As set forth above, the NRC staff determines that the proposed alternative for OMN-20, as described in Relief Request W3-RR-2016-1, provides reasonable assurance that the affected components are operationally ready. The NRC staff concludes that complying with the specified ASME OM Code requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concludes that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2). Therefore, the NRC staff authorizes alternative request W3-RR-2016-1

for Waterford 3 for the third 10-year IST program interval, which began on December 1, 2007, and is scheduled to end on November 30, 2017 or until Code Case OMN-20 is incorporated into a future revision of Regulatory Guide 1.192, referenced by a future revision of 10 CFR 50.55a, whichever occurs first.

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

Principal Contributor: A. Wang

Date: December 9, 2016

All other ASME OM Code requirements for which relief was not specifically requested and approved in the subject request remain applicable.

If you have any questions, please contact the Project Manager, April Pulvirenti at 301-415-1390 or via e-mail at [April.Pulvirenti@nrc.gov](mailto:April.Pulvirenti@nrc.gov).

Sincerely,

***/RA/ SKoenick for***

Douglas A. Broaddus, Acting Chief  
Plant Licensing IV-2 and Decommissioning  
Transition Branch  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosure:  
Safety Evaluation

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**ADAMS Accession No. ML16235A228**

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