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Waterford 3

10 CFR 50.55a

W3F1-2018-0030

May 31, 2018

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

SUBJECT: Supplemental Information Supporting the Request for NRC Alternative to ASME IWA-5211 Regarding Charging Pipe Visual Inspection, Relief Request W3-ISI-030
Waterford Steam Electric Station, Unit 3 (Waterford 3)
Docket No. 50-382
License No. NPF-38

- REFERENCES:**
1. W3F1-2018-0008, Request for NRC Alternative to ASME IWA-5211 Regarding Charging Pipe Visual Inspection, Relief Request W3-ISI-030, February 20, 2018 [NRC ADAMS Accession Number ML18051B559].
 2. NRC E-mail Correspondence, Waterford 3 – Acceptance Review of Relief Request W3-ISI-030 Regarding Charging Pipe Visual Inspection (EPID No. L-2018-0025), March 20, 2018 [NRC ADAMS Accession Number ML18080A020].
 3. Notice of Public Teleconference with Entergy Operations, Inc. Regarding Request for Alternative to the Requirements in ASME Code, Section XI, IWA-5211, for the Waterford Steam Electric Station, Unit 3 (EPID L-2018-LLR-0025), April 3, 2018 [NRC ADAMS Accession Number ML18122A097].
 4. Public Teleconference Regarding Request for Alternative to the Requirements in American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, IWA-5211, for the Waterford Steam Electric Station, Unit 3, April 17, 2018 [NRC ADAMS Accession Number ML18093A487].
 5. NRC Letter, Summary of April 17, 2018, Public Meeting With Entergy Operations, Inc., Regarding Relief Request for Visual Inspection of Charging Pipes for the Waterford Steam Electric Station, Unit 3 (EPID L-2018-LLR-0025), May 10, 2018 [NRC ADAMS Accession Number ML18120A311].

Dear Sir or Madam:

By letter dated February 20, 2018 (Reference 1), Entergy Operations, Inc. (Entergy) submitted Request for Alternative to the Requirements in ASME Code, Section XI, IWA-5211, for the Waterford Steam Electric Station, Unit 3, for the Fourth Inservice Inspection (ISI) Interval of the ISI Program (Relief Request W3-ISI-030), pursuant to 10 CFR 50.55a.

Reference 3, dated April 3, 2018, provided notification of a public teleconference between the NRC and Entergy regarding the submittal for Relief Request W3-ISI-030. Reference 4, dated April 17, 2018, documented several topics for discussion regarding the submittal which were to be discussed at the public teleconference.

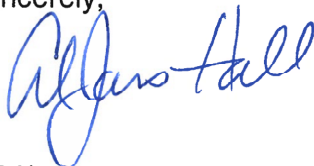
Reference 5, dated May 10, 2018, provided a summary of the public teleconference. During the teleconference, the NRC staff established that three items, as worded in the discussion topics, were equivalent to requests for additional information (RAIs). Entergy agreed to provide a response to the questions in the discussion topics as a supplement to Relief Request W3-ISI-030 such that the NRC staff could evaluate the information as part of its review of the submittal.

The questions and responses as discussed in the public teleconference and as documented in References 4 and 5 are provided in the Enclosure to this letter.

There are no new regulatory commitments contained in this supplement.

If you have any questions or require additional information, please contact John Jarrell, Regulatory Assurance Manager, at 504-739-6685.

Sincerely,

 ^{JH} 5/31/18
ACTING FOR JOHN JARRELL

JPJ/mmz

Enclosure: Supplement to Relief Request W3-ISI-030

cc: Mr. Kriss Kennedy, Regional Administrator
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Enclosure to

W3F1-2018-0030

Waterford Steam Electric Station, Unit 3

Supplement to Relief Request W3-ISI-030

(3 pages)

Discussion Topic /Request for Additional Information 1

Provide citation of the relevant regulation under Title 10 of the Code of Federal Regulations (10 CFR) Part 50 to provide the regulatory basis of the proposed alternative: The licensee submitted the request pursuant to 10 CFR 50.55a(z)(1), which addresses the demonstration of an acceptable level of quality and safety. However, in its submittal, the licensee justified the proposed alternative by stating that adherence to the Code (IWA-5211) requirements would result in declaration of inoperability of the containment ventilation area system (CVAS) trains per Waterford 3 Technical Specification 4.7.7.d.2. The NRC staff considers that this justification is more properly characterized as hardship without a compensating increase in the level of quality and safety, which is addressed in 10 CFR 50.55a(z)(2). This view is also consistent with the previous safety evaluation regarding the licensee's essentially identical request for the Waterford 3 third inservice inspection interval (ADAMS Accession No. ML103570392).

Entergy Response

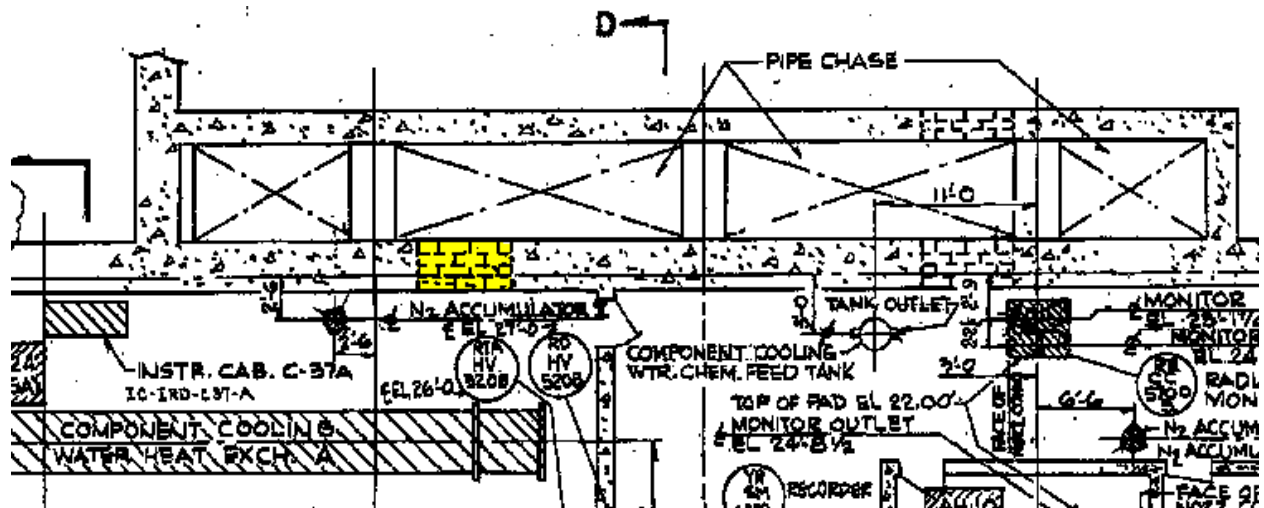
Consistent with the conclusion above, Entergy requests that 10 CFR 50.55a Relief Request W3-ISI-030, submitted via letter W3F1-2018-0008 on February 20, 2018 (Reference 1), be revised such that the request for alternative be made pursuant to 10 CFR 50.55a(z)(2) on the basis that compliance with the requirement in the Code of record would result in a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Discussion Topic/Request for Additional Information 2

Provide clarification as to whether temporary access through block-out sections is provided during the proposed VT-2 visual examination.

Entergy Response

The block-out sections that are utilized during the visual test are provided in Waterford 3 drawing G135, GENERAL ARRANGEMENT REACTOR AUXILIARY BUILDING PLAN EL.+21 FEET. Reference the highlighted section of the portion of Waterford 3 drawing G135 which is provided below. The block-out sections will be of sufficient size to allow entry by plant personnel. Per Waterford 3 American Society of Mechanical Engineers (ASME) Section XI Pressure Testing Procedure, access to the vertical pipe chase is obtained via removal of the L-Wall in Component Cooling Water (CCW) Heat Exchanger 'A; Room and requires a Health Physics Survey and a confined space permit for entry. Additionally, work order instructions direct the removal of the sections of the block wall that will provide access to the vertical pipe chase and the opening must allow personnel entry and installation of scaffolding.



Discussion Topic/Request for Additional Information 3

Provide the following items:

- a) Susceptibility evaluation of degradation mechanisms (e.g., stress corrosion cracking and thermal fatigue) for the subject piping; and,
- b) Operating experience, including inspection results, which potentially indicate any previous occurrence of degradation in the subject piping.

Entergy Response

An evaluation of the susceptibility of the subject pipe to known degradation mechanisms is provided in the Waterford 3 License Renewal Document, Aging Management Review of the Chemical and Volume Control System. As documented in the Waterford 3 License Renewal Document, Aging Management Review of the Chemical and Volume Control System, since the subject piping is in the flow path from the outlet of the Letdown Heat Exchanger to the charging flow inlet of the Regenerative Heat Exchanger, the aging mechanisms of stress corrosion cracking and thermal fatigue do not apply to the subject piping.

A search of operating experience for past inspection results has been completed to identify if there is indication of past degradation. A review of the past inspection results as well as work order history has revealed no indications of previous occurrences of degradation in the subject piping. All previous inspections were performed with satisfactory results as documented on the associated visual inspection leakage test reports.

Leakage due to charging pipe degradation could also be identified by analyzing any increase in the makeup rate of the charging system when performing the Reactor Coolant System (RCS) Water Inventory Balance. The RCS unidentified leakage is limited to 1 gallon per minute (GPM) per Waterford 3 Technical Specification 3/4.5.2, "Operational Leakage."