

NRR-DMPSPEm Resource

From: Williams, Shawn
Sent: Thursday, April 11, 2019 2:12 PM
To: MOORE, MICHAEL S
Cc: DALICK, SARA BETH
Subject: V.C. Summer, Unit 1: Relief Request (RR-4-22) Verbal Authorization Script
Attachments: V.C. Summer RR-4-22 Verbal Authorization.docx

Mr. Moore,

At approximately 2pm (EST) on April 11, 2019, the NRC read the attached verbal authorization script regarding South Carolina Electric & Gas Company relief request (RR-4-22) dated April 10, 2019, to use the American Society of Mechanical Engineers (ASME) Code Case N-513-4 as an alternative to the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, IWA-4000.

Sincerely,
Shawn Williams
Senior Project Manager, NRC
301-415-1009

Hearing Identifier: NRR_DMPS
Email Number: 920

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Subject: V.C. Summer, Unit 1: Relief Request (RR-4-22) Verbal Authorization Script
Sent Date: 4/11/2019 2:11:38 PM
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From: Williams, Shawn

Created By: Shawn.Williams@nrc.gov

Recipients:
"DALICK, SARA BETH " <SARA.DALICK@scana.com>
Tracking Status: None
"MOORE, MICHAEL S" <MICHAEL.S.MOORE@scana.com>
Tracking Status: None

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MESSAGE	485	4/11/2019 2:11:39 PM
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Options
Priority: Standard
Return Notification: No
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Sensitivity: Normal
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VERBAL AUTHORIZATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
FOR
PROPOSED ALTERNATIVE RELIEF REQUEST RR-4-22
USE OF ASME CODE CASE N-513-4
VIRGIL C. SUMMER NUCLEAR STATION, UNIT NO. 1
DOCKET NO. 50-395

April 11, 2019

Technical Evaluation read by Stephen Cumblidge, Acting Chief of the Piping and Head Penetrations Branch, Office of Nuclear Reactor Regulation

By letter dated April 10, 2019, South Carolina Electric & Gas Company (SCE&G, the licensee), submitted a proposed alternative to the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, IWA-4000, at Virgil C. Summer Nuclear Station, Unit 1.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z)(2), the licensee submitted proposed alternative Relief Request RR-4-22 to implement ASME Code Case N-513-4 "Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping, Section XI, Division 1," to disposition a pinhole leak in lieu of performing an ASME Code repair of a Service Water (SW) branch tee located on the ASME Code Class 3 20-inch diameter piping downstream of the 'B' Component Cooling Water heat exchanger B SW Return Valve XVB03123B-SW below a field weld (FW-1).

On April 9, 2019, the licensee discovered the leakage rate in the branch tee to be approximately 0.0018 gallons per minute. The licensee has requested to use Code Case N-513-4 to evaluate the flaw in lieu of repair in accordance with ASME Code Section XI, IWA-4000. The licensee stated that it followed all requirements of Code Case N-513-4 and took no exceptions. The licensee noted that the U.S. Nuclear Regulatory Commission (NRC) has not approved the use of Code Case N-513-4; therefore, a proposed alternative is required.

In addition to following all the requirements of Code Case N-513-4 the licensee determined an allowable maximum leakage rate of 51.7 gallons per minute. The licensee stated that further degradation is acceptable as long as the average thickness of the remaining material outside the hole is greater than 0.06 inches within a diameter of 5 inches of the hole.

The NRC staff notes that Code Case N-513-4 requires frequent periodic inspections to determine if flaws are growing. The code case requires daily monitoring to confirm the analysis conditions used in the evaluation remain valid, thus ensuring that the structural integrity of the subject component is maintained. The NRC staff determined that the licensee's approach of applying a maximum leakage rate that provides sufficient margin regarding the minimum required system flow and maximum allowable flooding, is acceptable because it will provide sufficient time for corrective measures to be taken before significant increases in leakage erodes defense-in-depth, which could lead to adverse consequences.

The NRC staff finds that performing an ASME Code repair will require a shutdown, which would lead to transients and potential risk that constitute a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The NRC finds that the licensee's proposed alternative provides reasonable assurance that the structural integrity of the subject plant service water piping and its intended safety function will be maintained until the next scheduled refueling outage.

Authorization read by Michael Markley, Chief of the Plant Licensing Branch II-1, NRR

As Chief of the Plant Licensing Branch II-1, Office of Nuclear Reactor Regulation, I agree with the conclusions of the Piping and Head Penetrations Branch.

The NRC staff determines that the proposed alternative provides reasonable assurance of structural integrity of the subject plant service water piping. The NRC staff finds that complying with IWA-4000 of the ASME Code, Section XI, 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 the regulatory requirements set forth in 10 CFR 50.55a(z)(2). Therefore, today, April 11, 2019, the NRC authorizes the use of proposed alternative Relief Request RR-4-22 at Virgil C. Summer Nuclear Station Unit 1, until the next refueling outage, which is scheduled to begin in spring 2020, or until the temporary acceptance criteria of Code Case N-513-4 are exceeded, or until the leak rate exceeds 51.7 gallons per minute, whichever event occurs first.

The NRC staff notes that this approval does not imply or infer the generic use of Code Case N-513-4.

All other requirements in ASME Code, Section XI, for which relief was not specifically requested and approved in this relief request remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

This verbal authorization does not preclude the NRC staff from asking additional clarification questions regarding the proposed alternative while preparing subsequent written safety evaluation.