

NRR-DMPSPEm Resource

From: Williams, Shawn
Sent: Wednesday, August 15, 2018 11:10 AM
To: DALICK, SARA BETH
Subject: Verbal Authorization Script for Relief Request RR-4-17 - Service Water Pinhole leak in Discharge Line from B Train Emergency Diesel Generator
Attachments: Verbal Authorization for VC Summer RR-4-17 .docx

Ms. Dalick,
On August 15, 2018, approximately 11am, the NRC authorized, via verbal authorization, the use of Relief Request RR-4-17 at V.C. Summer Nuclear Station, Unit 1. Attached is the script of the verbal authorization.

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

Hearing Identifier: NRR_DMPS
Email Number: 521

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Subject: Verbal Authorization Script for Relief Request RR-4-17 - Service Water Pinhole leak in Discharge Line from B Train Emergency Diesel Generator
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From: Williams, Shawn

Created By: Shawn.Williams@nrc.gov

Recipients:
"DALICK, SARA BETH" <SARA.DALICK@scana.com>
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MESSAGE	322	8/15/2018 11:09:40 AM
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VERBAL AUTHORIZATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELIEF REQUEST RR-4-17
TEMPORARY ACCEPTANCE OF A FLAW IN SERVICE WATER PIPING
VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1
DOCKET NO. 50-395
AUGUST 15, 2018

**Technical Evaluation read by Steve Ruffin, Chief of Piping and Head Penetrations
Branch, Division of Materials and License Renewal, NRR**

By letter dated August 14, 2018, South Carolina Electric and Gas Company (the licensee) requested relief from 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-4-17 to implement ASME Code Case N-513-3 "Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping, Section XI, Division 1," with a minor modification, to disposition a pinhole leak in lieu of performing an ASME Code repair/replacement of an 8 inch, ASME Code Class 3 service water system piping component.

On August 13, 2018, the licensee discovered a small pin-hole leak on the weld neck flange downstream of valve XVB03121B-SW on a service water discharge line from the B-Train Emergency Diesel Generator. At the time, the licensee reported leak was spraying onto an adjacent wall and floor at approximately 20 ml/minute. The licensee calculated an allowable leak rate of 11.5 gallons/minute based on a 0.375-inch diameter postulated hole at 20 psig. The allowable leak rate is sufficiently low, so as to not challenge the structural integrity of the piping, affect the required safety function of the SW piping system, or create issues associated with flooding or water spray.

The licensee calculated that the observed degradation is temporarily acceptable as long as the average thickness of remaining material outside of the pin hole is greater than 0.046 inches within a diameter of 2.0 inches of the pin hole, the leakage from the subject leak remains below 11.5 gallons/minute, and the total "B" Train service water system leakage remain below 61.8 gallons/minute. Additionally, the licensee stated that it will perform the required augmented inspection per Code Case N-513-3, including monitoring the leak rate daily, ultrasonic testing every 30 days to monitor the flaw growth, and performing extent of condition inspections.

The NRC staff finds that there is sufficient margin in terms of flaw size and leak rate with respect to the licensee's calculated acceptable limits, until the next refueling outage (RF24), currently scheduled to start on October 6, 2018. The NRC finds that the licensee has demonstrated that

Relief Request RR-4-17 will provide reasonable assurance that the structural integrity of the subject service water piping and its intended safety function will be maintained.

Authorization read by Michael Markley, Chief of Plant Licensing Branch II-1, Division of Operating Reactor Licensing, NRR

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

The NRC staff concludes that the proposed alternative provides a reasonable assurance of the structural integrity of the subject service water piping. The NRC staff finds that complying with the ASME Code, Section XI repair/replacement 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, as of August 15, 2018, the NRC authorizes the use of Relief Request RR-4-17 at Virgil C. Summer Nuclear Station Unit 1, until the conclusion of the upcoming refueling outage (RF-24), currently scheduled to begin on October 6, 2018, or, before exceeding the temporary acceptance criteria of Code Case N-513-3, or before exceeding the acceptance criteria in the RR-4-17 relief request, whichever occurs first.

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 question(s) regarding the proposed alternative while preparing the subsequent written safety evaluation.