

NRR-PMDAPEm Resource

From: Orenak, Michael
Sent: Saturday, January 14, 2017 10:27 AM
To: jgarza@scana.com; bthompson@scana.com
Cc: Williams, Shawn
Subject: Verbal Authorization for Relief Request RR-4-11

John,

Below is the script for the verbal authorization of relief request RR-4-11 that was provided at approximately 10:10 am EDT on 1/14/2017 by David Alley and Michael Markley. Please let me or Shawn Williams know if you have any further questions. As I stated during the call, a written relief request authorization will be issued within 150 days from today.

Mike

VERBAL AUTHORIZATION FOR
RELIEF REQUEST RR-4-11
TEMPORARY ACCEPTANCE OF FLAWS IN SERVICE WATER PIPING
VIRGIL C. SUMMER NUCLEAR STATION UNIT 1
DOCKET NO. 50-395
JANUARY 14, 2017

Technical Evaluation read by David Alley, Chief of the Component Performance, Non-Destructive Examination, and Testing Branch, NRR

By letter dated January 13, 2017, 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 Relief Request RR-4-11 to propose an alternative flaw evaluation to that of 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," to disposition a pin hole leak in lieu of performing an ASME Code repair of the 8-inch, ASME Code Class 3 service water system piping.

On January 11, 2017, the licensee discovered a small pin hole leak on the weld neck flange of valve XVB03121A-SW on the "A" emergency diesel generator heat exchanger discharge of the service water system piping. At the time, the licensee reported a leak rate of 1 milliliter per minute. The licensee derived an allowable leak rate of 11.5 gallons per minute based on a 0.375-inch diameter hole. The allowable leak rate is sufficiently low so as to not to challenge the structural integrity of the piping, affect the required safety function of the pipe, or create issues associated with water spray or flooding. The licensee calculated that the degradation is acceptable as long as the average thickness of remaining material outside of the pin hole is greater than 0.02 inches within a diameter of 1.5 inches of the pin hole. The licensee stated that it will

perform required augmented inspections per Code Case N-513-3, including monitoring the leak rate daily, ultrasonic testing every 30 days to monitor flaw growth, and extent of condition inspections.

The NRC staff finds that there is a sufficient margin in terms of flaw size and leak rate with respect to the acceptable limits. Based on independent calculations, the NRC staff determines that the subject pipe has sufficient fracture toughness to maintain the structural integrity of the subject piping until the April 2017 refueling outage (RF23).

The NRC finds that the licensee has demonstrated that Relief Request RR-4-11 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 the Plant Licensing Branch II-1, NRR

As Chief of the Plant Licensing Branch II-1, Office of Nuclear Reactor Regulation, I concur with the conclusions of the Component Performance, Non-Destructive Examination, and Testing Branch.

The NRC staff concludes that the proposed alternative provides a reasonable assurance of structural integrity of the subject 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 all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2). Therefore, as of January 14, 2017, the NRC authorizes the use of Relief Request RR-4-11 at Virgil C. Summer Nuclear Station Unit 1 until the end of the April 2017 refueling outage (RF23), or exceeding the temporary acceptance criteria of Code Case N-513-3 and the 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 questions regarding the Relief Request while preparing subsequent written safety evaluation.

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Created By: Michael.Orenak@nrc.gov

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