

NRR-PMDAPEm Resource

From: Hughey, John
Sent: Friday, January 03, 2014 9:21 AM
To: Lamb, John
Subject: FW: Verbal Authorization for Seabrook

-----Original Message-----

From: Hughey, John
Sent: Saturday, August 31, 2013 7:06 AM
To: Tsao, John; Lupold, Timothy; Lamb, John
Cc: Cataldo, Paul; Dentel, Glenn
Subject: RE: Verbal Authorization for Seabrook

Final version:

VERBAL AUTHORIZATION FOR
RELIEF REQUEST RA-13-001
TEMPORARY REPAIR OF SERVICE WATER PIPING SEABROOK STATION AUGUST 31, 2013

EPNB Chief Tim Lupold Statement

By two emails dated August 30, 2013, Nextera Energy (the licensee) requested relief from requirements of American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, subarticle IWA-4000 at the Seabrook Station.

Specifically, pursuant to Title 10 of the Code of Federal Regulations (10 CFR) 50.55a(a)(3)(ii), the licensee requested to use the alternative in Relief Request RA-13-001 on the basis that complying with the specified ASME Code requirement would result in hardship or unusual difficulty. Relief Request RA-13-001 provides temporary repair of the service water (SW) piping until the next refueling outage which is scheduled for Spring, 2014.

The affected piping is the ASME Code Class 3, "B" Train 24-inch diameter service water supply pipe, line number SW-1802-004-153-24". On August 7, 2013, the licensee identified a leaking 0.25-inch diameter pin hole. The licensee also identified a wall thinning area about 1.5 inches by 2.327 inches around the pin hole as a result of the localized corrosion from seawater.

The licensee plans to weld a 6-inch nominal diameter branch connection (a weldolet and blind flange) at the defective area in accordance with the ASME Code, Section IX and the branch connection will meet the ASME Section III Article ND requirements for fabrication. The weldolet is rated at a pressure and temperature of 150 psi and 200 degrees F. The licensee will perform the nondestructive examinations of the branch connection installation in accordance with the ASME Code, Section XI and the acceptance criteria will be based on the ASME Code, Section III, Article ND. The total branch connection weighs 77.2 lbs. The NRC staff finds that the pipe is adequately supported and restrained in the vicinity of the repaired area. Therefore, the weight of the branch connection will not affect the pipe stresses during seismic conditions.

The NRC staff was concerned regarding the potential of continued wall thinning at the repaired area that may affect the branch connection (weldolet). The licensee stated that it used a corrosion growth rate of 30 mils per year including a safety factor of 4 to project the potential wall thinning. The licensee concluded that there is sufficient base metal such that further corrosion will not affect the integrity of the repair. The NRC staff performed an independent calculation and verified that the pipe underneath the weldolet will have

sufficient wall thickness to maintain its structural integrity during the effective period of the relief request.

The licensee stated that to perform an ASME code repair for the subject piping would result in hardship because the plant would have to be shutdown in mid-cycle. The NRC staff finds that complying with the specified ASME Code requirement would result in hardship or unusual difficulty without a compensating crease in the level of quality and safety.

The NRC staff determines that the branch connection (the weldolet and blind flange) will be installed, examined, and tested based on the ASME Code, Sections III and Section XI. The weldolet will be welded to the pipe base metal which will have sufficient wall thickness to provide structural support. The NRC staff concludes that the proposed repair will provide reasonable assurance of the structural integrity and leak tightness of the subject service water pipe during the effective period of the relief request.

DORL PB 1-2 Acting Chief John Hughey Statement

As set forth above, the NRC staff determines that the proposed alternative provides reasonable assurance of structural integrity and leaktightness of the subject service water piping. The NRC staff finds that complying with the specified ASME Code requirement 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(a)(3)(ii) and is in compliance with the requirements of the ASME Code, Section XI, for which the relief was not requested. Therefore, on August 31, 2013, the NRC staff verbally authorizes the use of Relief Request Number RA-13-001 at the Seabrook Station effective up to the next refueling outage currently scheduled for Spring, 2014.

All other ASME Code requirements 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.

The NRC staff will prepare a written safety evaluation for the relief request as part of the verbal authorization. During which time the NRC staff may ask additional clarification questions.

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