

From: DeFrancisco, Anne
Sent: Wednesday, July 21, 2010 8:20:37 AM
To: Ambrosini, Josephine; Kulp, Jeffrey
Cc: R1ENFORCEMENT RESOURCE; Barber, Scott
Subject: Enforcement for OC Finding
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PRELIMINARY DRAFT INFORMATION – DO NOT RELEASE

Jo, Jeff: Below is an excerpt from a marked up draft quarterly feeder for Salem dealing with a failure to meet 50.55a for a degraded piping issue. Question - I see in your OC writeup that the licensee did some calcs and acoustic testing for the core spray check valve – what is the status of their overall operability assessment? -Anne

Finding

The inspector identified the following violation related to ASME, Section XI testing of buried Unit 1 and Unit 2 buried AFW piping.

Introduction The inspector identified a GREEN non-cited violation (NCV) of 10 CFR 50.55a(g)(4) and the referenced American Society of Mechanical Engineers (ASME) Code, Section XI, paragraph IWA-5244 for PSEG's failure to perform required pressure tests of buried components. This piping is safety related, 4.0" ID, ASME Class 3, Seismic Class 1 piping.

Description Portions of the Unit 1 and Unit 2 Auxiliary Feedwater (AFW) System piping is buried piping and has not been visually inspected since the plant began operation in 1977 for Unit 1 and since 1979 for Salem Unit 2. In April 2010, approximately 680 ft. (340 ft. of the #12 SG AFW supply and 340 ft. of the #14 SG AFW supply) of piping between the pump discharge manifold and the connection to the Main Feedwater piping to the affected SGs was discovered to be corroded to below minimum wall thickness (0.278") for the 1950 psi design pressure of the AFW System. The lowest wall thickness measured in the affected piping was 0.077". (b)(5)

(b)(5)

10 CFR 50.55(a)(g)(4)(ii) requires licensees to follow the in-service requirements of the ASME Code, Section XI. Paragraph IWA-5244 requires licensees to perform pressure tests on buried components to demonstrate structural integrity of the tested piping. The pressure test required by IWA-5244 is considered to be an inservice inspection and is part of Section XI. (b)(5)

(b)(5)

(b)(5)

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PSEG sought relief, from the NRC, from the previous Code required pressure testing in 1988 for Unit 1 only. Relief was granted to PSEG, by the NRC, to perform an alternate flow test in 1991 for Unit 1. However, PSEG did not perform the proposed alternate tests during the 2nd inservice interval and during the 1st (5/19/01 to 5/22/04) and 2nd (5/24/04 to 5/20/08) periods of the 3rd In Service Inspection Interval for Unit 1. (b)(5)

(b)(5)
(b)(5)
Thus, PSEG missed an opportunity to identify and correct this performance deficiency which affects Unit 1 and Unit 2.

(b)(5)

PSEG replaced the affected buried Unit 1 piping during the refueling outage in April/May 2010. The required pressure tests were successfully completed after the replacement of the Unit 1 buried piping. (b)(5)

(b)(5)

The inspector determined that a Cross Cutting Aspect did not exist because the issue was not indicative of current performance because the condition existed since 1991, more than 3 years ago. Specifically . . .

(b)(5)

Enforcement 10 CFR 50.55a(g)(4) states, in part: "Throughout the service life of a boiling or pressurized water-cooled nuclear power facility, components ...which are classified as ASME Code Class 1, Class 2 and Class 3 must meet the requirements, ... , set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code". Paragraph IWA-5244, Buried Components, of Section XI says, in part,

"(b) For buried components where a VT-2 visual examination cannot be performed , the examination requirement is satisfied by the following: (1) The system pressure test for buried components that are isolable by means of valves shall consist of a test that determines the rate of pressure loss. Alternatively, the test may determine the change in flow between the ends of the buried components. ..."

Contrary to these requirements, PSEG did not perform the required pressure tests of the buried AFW piping to the #12 SG and #14 SG at Salem Unit 1 during the 2nd In Service Inspection Interval (2/27/88 to 5/19/01) and during the 1st (5/19/01 to 6/3/04) and 2nd (6/24/04 to 5/20/08) periods of the 3rd In Service Inspection Interval (5/19/01 to (b)(6)

(b)(5)

Because PSEG entered this condition into the corrective action process (Notification 20459686) and because it is of very low safety significance (Green), it is being treated as a non-cited violation consistent with Section VI.A.1 of the NRC Enforcement Policy. NCV 50-272/2010-?? and NCV 50-311/2010-??

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EXEMPTION 5.