



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

September 17, 2015

LICENSEE: Exelon Generating Company, LLC

FACILITY: Peach Bottom Atomic Power Station, Units 2 and 3

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE ON SEPTEMBER 17, 2015,
VERBAL AUTHORIZATION OF RELIEF REQUEST FOR PEACH BOTTOM
ATOMIC POWER STATION, UNITS 2 AND 3 (TAC NOS. MF6551 AND
MF6552)

INTRODUCTION

By letter dated July 29, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15210A750), as supplemented by letters dated August 13, and September 11, 2015 (ADAMS Accession Nos. ML15225A592 and ML15254A545, respectively), Exelon Generation Company, LLC (Exelon, the licensee) requested approval of a proposed alternative to the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), for Peach Bottom Atomic Power Station (PBAPS), Units 2 and 3. Specifically, Relief Request I4R-56 would allow deferral of the repair of a through-wall leak in a section of piping in the emergency service water (ESW) system until the fall 2016 refueling outage for PBAPS, Unit 2. The affected section of piping is common to both units. Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(z)(2), the licensee requested to use the proposed alternative on the basis that complying with the specified requirement would result in hardship or unusual difficulty, without a compensating increase in the level of quality and safety.

This memorandum summarizes the telephone discussion on September 17, 2015, between the U.S. Nuclear Regulatory Commission (NRC) staff and Exelon regarding the relief request. During this telephone call, the NRC staff provided verbal authorization of the relief request as described below. Participants in the discussion from Exelon included: Jim Armstrong, Dave Foss, Bill Reynolds, Jeff Chizever, Ken Hudson, Brian Rufo, Gene Nazratil, Maher Kassar, and Dave Helker. Participants from the NRC included: Douglas Broaddus, David Alley, Robert Davis, Rick Ennis, Brian Smith, and Scott Barber.

BACKGROUND

As discussed in the licensee's letter dated July 29, 2015, the licensee discovered a pinhole leak in the ESW system in a vertical run of 12-inch piping on May 3, 2015, during routine operator rounds. The leak is located very close to the ceiling of the Unit 2 reactor building sump room. The section of piping is part of the main ESW header that provides ESW flow to the Unit 2 emergency core cooling system (ECCS) coolers. However, it is physically connected to common piping, which also provides flow to the Unit 3 ECCS room coolers and to the common emergency diesel generators.

In accordance with 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," as conditionally accepted in Regulatory Guide (RG) 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 17, dated August 2014 (ADAMS Accession No. ML13339A689), the repair or replacement activity of a flaw (covered by the Code Case) may be temporarily deferred until the next refueling outage.

As discussed in the licensee's letter dated July 29, 2015, since the affected piping is common to both units, the next scheduled outage is the PBAPS, Unit 3, refueling outage scheduled to begin in September 2015. However, isolating the leak location during the Unit 3 outage would result in a technical specification required shutdown of Unit 2 (i.e., would result in a dual unit shutdown). As such, the licensee proposed an alternative to defer the repair of the leak until the next scheduled Unit 2 refueling outage in October 2016.

The licensee evaluated several options of repairing the leak without the need for a relief request. However, it was determined that none of the options could be performed, due to the proximity of the leak to the ceiling of the Unit 2 reactor building sump room.

RELIEF REQUEST TELEPHONE CALL

The NRC staff discussed the following during the telephone call with Exelon on September 17, 2015, with respect to the proposed relief request:

Currently, PBAPS is utilizing ASME Code Case N-513-3, as conditionally accepted in RG 1.147, to continue the operation of Units 2 and 3 with ESW system piping leakage. Code Case N-513-3 and RG 1.147 require that the leaking ESW piping be repaired or replaced during the next scheduled outage. The licensee stated that the ESW system is a shared system between Units 2 and 3, and the next scheduled outage is the Unit 3 outage in September 2015.

The leaking pipe spool is not isolable and requires a Unit 2 shutdown to repair or replace the leaking pipe spool. Therefore, in order to comply with Code Case N-513-3 as conditionally accepted by RG 1.147, a dual unit shutdown would be required in September 2015. The licensee contends that the resulting dual unit shutdown would result in hardship of an unnecessary Unit 2 plant transient, additional personnel radiological exposure, and a potential adverse effect on electrical grid stability without a compensating increase in the level of quality and safety.

In its request, the licensee proposed to use ASME Code Case N-513-3, as conditionally approved by the NRC in RG 1.147, to justify continued operation of the section of degraded ESW piping. The licensee also stated that during the time of its proposed deferral of the repair of the degraded piping, from September 2015 until the Unit 2 refueling outage in October 2016, it will continue to meet all requirements in Code Case N-513-3, with the exception of paragraph 2(h), which requires, in part, that repair or replacement be performed at the next scheduled outage. RG 1.147 also specifies, as a condition for use, that when using Code Case N-513-3, repair or replacement activities temporarily deferred under the provisions of this code case shall be performed during the next scheduled outage. The licensee also proposed,

as part of its alternative, to set a maximum allowable leakage rate of 5 gallons per minute (gpm).

The NRC staff reviewed the licensee's structural analysis and finds that its analysis shows an acceptable margin between the projected piping flaw size in October 2016, as determined by its corrosion analysis, and the maximum allowable flaw size determined by its structural analysis in accordance with Code Case N-513-3. The NRC staff also reviewed the leakage rate information contained in the licensee's submittal and finds that it provides reasonable assurance that the leakage from the leaking pipe spool will not adversely affect the safety function of the ESW system or the surrounding safety-related systems and equipment. The licensee's proposed maximum allowable leakage rate of 5 gpm provides acceptable margin when compared to the current leakage rate and the leakage rate anticipated at the beginning of the Unit 2 scheduled refueling outage in October 2016. The NRC staff also finds the licensee's hardship justification acceptable.

The NRC staff determined that the proposed alternative provides reasonable assurance that the structural integrity of the subject ESW system piping will be maintained and that leakage from the piping will not adversely affect the safety function of the ESW system or the surrounding safety-related systems and equipment. The NRC finds that complying with Code Case N-513-3 and the condition on the Code Case listed in RG 1.147 will result in hardship or unusual difficulty without a compensating increase in the level of quality and safety. Accordingly, the NRC staff concluded that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(z)(2). Therefore, effective September 17, 2015, the NRC authorized the use of the proposed alternative at PBAPS, Units 2 and 3, for the current Unit 2 operating cycle, through the end of the Unit 2 refueling outage scheduled to begin in October 2016, or until system leakage exceeds 5 gpm, whichever occurs earlier.

All other requirements of ASME Code, Section XI, and Code Case N-513-3 for which relief was not specifically requested and authorized by the NRC staff remain applicable, including the 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 subject relief request while preparing the subsequent written safety evaluation. The NRC staff's written safety evaluation will be provided by separate correspondence.

The verbal relief was authorized with the concurrence of Douglas Broaddus, Chief of the Plant Licensing Branch I-2, Office of Nuclear Reactor Regulation (NRR), and David Alley, Chief of the Component Performance, Non-Destructive Examination, and Testing Branch, NRR.

If you have any questions, please contact me at (301) 415-1420 or Rick.Ennis@nrc.gov.

A handwritten signature in black ink, appearing to read 'RBE', with a stylized flourish extending to the right.

Richard B. Ennis, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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If you have any questions, please contact me at (301) 415-1420 or Rick.Ennis@nrc.gov.

/RA/

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Office of Nuclear Reactor Regulation

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