



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

January 31, 2014

Mr. Timothy S. Rausch
Senior Vice President and
Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Boulevard
Berwick, PA 18603-0467

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 – REQUEST FOR ADDITIONAL INFORMATION REGARDING RELIEF REQUESTS FOR THE FOURTH 10-YEAR INSERVICE TESTING INTERVAL (TAC NOS. MF2905 THROUGH MF2912 AND MF2915)

Dear Mr. Rausch:

By letter dated October 8, 2013,¹ as supplemented by letter dated December 12, 2013,² PPL Susquehanna, LLC (the licensee), submitted a group of relief requests for Susquehanna Steam Electric Station, Units 1 and 2. The proposed relief requests are associated with the Fourth 10-Year Inservice Testing Interval.

The Nuclear Regulatory Commission (NRC) staff has specific questions relating to Relief Request 1RR05 for Susquehanna Steam Electric Station, Unit 1. Specifically, pursuant to Title 10 of the *Code of Federal Regulations* Paragraph 50.55a(a)(3), the licensee is requesting the use of an alternative to certain requirements of the American Society of Mechanical Engineers Operation and Maintenance Code, Section ISTC-3522(c), on the basis that the proposed alternative would provide an acceptable level of quality and safety. To complete its review, the NRC staff requests responses to the enclosed questions.

The draft questions were sent to Mr. Duane Filchner, of your staff, to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. On January 29, 2014, Mr. Filchner, agreed that you would provide a response by February 28, 2014.

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML13282A554.

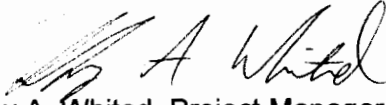
² ADAMS Accession No. ML13347B233.

T. Rausch

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If you have any questions regarding this matter, please contact me at 301-415-4090 or via e-mail at Jeffrey.White@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeffrey A. Whited". The signature is fluid and cursive, with a large initial "J" and "W".

Jeffrey A. Whited, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
OFFICE OF NUCLEAR REACTOR REGULATION
PROPOSED ALTERNATIVE REQUEST FOR RELIEF REQUEST 1RR05
FOURTH 10-YEAR INSERVICE TESTING INTERVAL
PPL SUSQUEHANNA, LLC
ALLEGHENY ELECTRIC COOPERATIVE, INC.
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
DOCKET NOS. 50-387 and 50-388

By letter dated October 8, 2013,¹ as supplemented by letter dated December 12, 2013,² PPL Susquehanna, LLC (the licensee), submitted a group of relief requests for Susquehanna Steam Electric Station, Units 1 and 2 (SSES-1 and -2). The proposed relief requests are associated with the Fourth 10-Year Inservice Testing (IST) Interval.

The Nuclear Regulatory Commission (NRC) staff has specific questions relating to Relief Request 1RR05 for SSES-1. Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Paragraph 50.55a(a)(3), the licensee is requesting the use of an alternative for four check valves (086018, 086118, 086241, and 086341) from certain requirements of the American Society of Mechanical Engineers Operation and Maintenance Code (ASME OM Code), Section ISTC-3522(c), on the basis that the proposed alternative would provide an acceptable level of quality and safety.

Background

ASME OM Code ISTC-3522(c) states “[i]f exercising is not practicable during operation at power and cold shutdowns, it shall be performed during refueling outages.”

ASME OM Code ISTC-3522(a) states, in part, that “[d]uring operation at power, each check valve shall be exercised or examined in a manner that verifies obturator travel by using the methods in ISTC-5221. Each check valve exercise test shall include open and close tests. Open and close tests need only be performed at an interval when it is practicable to perform both tests.”

Relief valves 086018 and 086118 have an open safety function only. They will continue to be tested for the open function quarterly. ASME OM Code ISTC-5221(a)(2) states, in part, that “[c]heck valves that have a safety function in only the open direction shall be exercised by initiating flow and observing that the obturator has traveled either the full open position or to the position required to perform its intended function(s) (see ISTA-1100), and verify closure.” To

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML13282A554.

² ADAMS Accession No. ML13347B233.

Enclosure

verify closure, it has been determined that leak testing is the only method available. Relief Request 1RR05 requests to perform a leak test during the operating fuel cycle for close verification. It is desired to test on line where it will be necessary to enter a limiting condition for operation (LCO) instead of during refueling outages. Justification for only doing this once per operating cycle is that the leak test presents a hardship due to LCO duration being 4 to 6 hours long.

Relief valves 086241 and 086341 have a close safety function only. These valves are keep fill valves that continuously demonstrate the open function. Similar to check valves 086018 and 086118, it has been determined that the close verification requires a leak test. Relief Request 1RR05 requests to perform a leak test once during the operating fuel cycle for close verification. However, the licensee desires to test on line where it will be necessary to enter an LCO instead of testing during refueling outages. The licensee's justification for only doing this once per operating cycle is that the leak test presents a hardship due to the LCO duration being 4 to 6 hours.

RAI 1 It appears that this relief request is for SSES-1 only. However, Section 5, "Proposed Alternate Testing," of your supplement states, in part, that "[p]ursuant to 10 CFR 50.55a(a)(3)(i), SSES 1 and 2 proposes an alternative testing frequency for performing inservice testing of the valves identified above."

Please verify that this relief request is only for SSES-1.

RAI 2 If these valves have been tested at refueling outage intervals in the past, is it documented in the IST program refueling outage justifications?

RAI 3 Do check valves 086241 and 086341 have a leakage criteria? If not, can the valve close verification be accomplished using non-intrusive techniques, such as, an accelerometer verifying that the disk hits the seat?

RAI 4 The proposed alternative, of this relief request, is to verify the close function once during the operating fuel cycle instead of during refueling outages. This method has the potential of testing a valve at the end of a cycle and then again at the beginning of the next cycle. This could lead to a situation where the close verify test will not be performed for almost 4 years. Please verify that the maximum interval between tests will be less than 24 months.

T. Rausch

- 2 -

If you have any questions regarding this matter, please contact me at 301-415-4090 or via e-mail at Jeffrey.White@nrc.gov.

Sincerely,

/ra/

Jeffrey A. Whited, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:
Request for Additional Information

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