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

February 23, 2012

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, UNIT 2 RE: RELIEF REQUEST NO. 3RR-18, REGARDING RELIEF FROM THE REQUIREMENTS OF THE ASME CODE FOR SUCCESSIVE INSPECTIONS (TAC NO. ME7381)

Dear Mr. Rausch:

By letter dated October 3, 2011, as supplemented by letter dated February 8, 2012, PPL Susquehanna, LLC (PPL, the licensee) submitted Relief Request 3RR-18, to the U.S. Nuclear Regulatory Commission (NRC) for a relief from the inservice inspection (ISI) program from certain requirements in Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for Susquehanna Steam Electric Station, Unit 2 (SSES-2).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(a)(3)(i), the licensee requested relief from the provisions of ASME Code, Subsection IWB-2420(a) for successive examinations of Class 1, B1.30 shell-to-flange weld, referred to as the AF weld, Examination Category B-A, Table IBW-2500-1.

The NRC staff has reviewed the subject request and concludes, as set forth in the enclosed safety evaluation, that granting Relief Request 3RR-18, pursuant to 10 CFR 50.55a(a)(3)(i) is authorized by law because the proposed alternative would provide an acceptable level of quality and safety. In addition, the missing examination record can be considered as meeting the "other considerations" clause in subsection IWA-2420(a), which would meet the requirements of IWA-2420(a).

Therefore, the NRC staff grants Relief Request 3RR-18 at SSES-2 for the third 10-year ISI interval for SSES, Unit 2 which began on June 1, 2004, and will end on May 31, 2014.

All other ASME Code, Section XI requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

Please contact me at (301) 415-1711, or the Project Manager, Bhalchandra K. Vaidya at (301) 415-3308, if you have any questions.

Sincerely,

George A. Wilson, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-388

Enclosure:
Safety Evaluation

cc w/encl: Distribution via Listserv

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST NO. 3RR-18 REGARDING SUCCESIVE EXAMINATION OF AF WELD

TO THIRD 10-YEAR INSERVICE INSPECTION

PPL SUSQUEHANNA, LLC

ALLEGHENY ELECTRIC COOPERATIVE, INC.

SUSQUEHANNA STEAM ELECTRIC STATION, UNIT 2

DOCKET NO. 50-388

1.0 INTRODUCTION

By letter dated October 3, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML112780095), as supplemented by letter dated February 8, 2012 ADAMS Accession No. ML12040A185), PPL Susquehanna, LLC (PPL, the licensee) submitted Relief Request 3RR-18, to the U.S. Nuclear Regulatory Commission (NRC) for a relief from the inservice inspection (ISI) program from certain requirements in Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for Susquehanna Steam Electric Station, Unit 2 (SSES-2).

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(a)(3)(i), the licensee requested relief from the provisions of ASME Code, Subsection IWB-2420(a) for successive examinations of Class 1, B1.30 shell-to-flange weld, referred to as the AF weld, Examination Category B-A, Table IBW-2500-1 for the third 10-year ISI interval for SSES, Unit 2 which began on June 1, 2004, and will end on May 31, 2014.

2.0 REGULATORY EVALUATION

ISI of the ASME Code Class 1, 2, and 3 components is performed in accordance with Section XI of the ASME Code and applicable addenda as required by 10 CFR 50.55a(g), except where specific relief has been granted by the NRC pursuant to 10 CFR 50.55a(g)(6)(i).

Subsection IWB-2420(a) of the ASME Code states:

> The sequence of component examinations which was established during the first inspection interval shall be repeated during each successive interval, to the extent practical. The sequence of component examinations may be modified in a manner that

optimizes scaffolding, radiological, insulation removal, or other considerations, provided that the percentage requirements of Table IWB-2411-1 are maintained.

10 CFR 50.55a(a)(3) states that alternatives to the requirements of paragraph (g) may be used, when authorized by the NRC, if: (i) the proposed alternatives would provide an acceptable level of quality and safety or (ii) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The Code of Record for the third 10-year ISI program at SSES, Unit 2 which began on June 1, 2004, and ends on May 31, 2014, was the 1998 Edition thru the 2000 Addenda of the ASME Code, Section XI.

3.0 TECHNICAL EVALUATION

3.1 ASME Code Requirement (as stated)

"The 1998 Edition thru the 2000 Addenda of ASME Section XI, Subsection IWB-2420(a) requires the "sequence of component examination which was established during the first inspection interval shall be repeated during each successive inspection interval, to the extent practical."

3.2 Component for Which Relief is Requested

Code Class:	Class 1
Exam Category:	B-A, Table IBW-2500-1
Item Number:	B1.30 shell-to-flange weld, referred to as the AF weld by the licensee.

3.3 Licensee's ASME Code Relief Requested (as stated)

"Relief is requested in accordance with 10 CFR 50.55a(a)(3)(i) from the provisions of Subsection IWB-2420(a) for successive examinations."

3.4 Licensee's Basis for Relief

For IWB-2420(a), the Code requires, to the extent practical, that the sequence of a subsequent ISI for any Class 1 component should be performed in the same sequence that was established during the first ISI interval. For SSES, Unit 2, the inspection of the AF weld, which connects the top vessel flange to the vessel shell, was divided into three sections for the initial ISI interval:

- 0-120 degrees inspected during first period,
- 120-240 degrees inspected during second period, and
- 240-360 degrees inspected during third period.

This sequence of inspections was repeated during the second ISI interval and was scheduled to be repeated again for the third (subject) ISI interval.

The 0-120 degrees section was inspected during the 13th refueling and inspection outage (1st period of the 3rd interval) with no recordable indications noted. However, during the review of

the ISI packages that is part of the outage closeout, no record of the inspections was found and therefore, no credit was given for the inspection. The event (missing inspection record) was entered into the PPL Corrective Action Program (CAP) and a further review of work orders performed to date in the current (3rd) ISI interval was completed without any additional problems noted.

The 0-120 degrees section was re-inspected during the 15th refueling and inspection outage (1st scheduled outage after discovery of the missing inspection record) with no recordable indications observed. The licensee will credit two inspections during the 2nd period of the 3rd inspection interval. The original sequence outlined above for the 1st and 2nd intervals will be used in the future.

3.5 Licensee's Proposed Alternative Examination

The licensee stated that the 0-120 degrees section was re-inspected during the 2nd period and no alternative examinations are required.

3.6 Duration of Proposed Alternative

The proposed alternative is requested for the third 10-year ISI interval for SSES-2 which began on June 1, 2004, and will end on May 31, 2014.

3.7 Staff's Evaluation

The NRC staff has reviewed the licensee's submittals and concludes that the ASME Code examination sequence requirement for the AF weld listed in Relief Request 3RR-18 cannot be achieved due to the lack of documentation. This issue related to the lost inspection record was entered into the CAP and re-inspection of the 0-120 degrees section was performed at the next refueling outage.

In this specific case of the missing records from the first period of the 3rd ISI interval at SSES, Unit 2, the NRC staff believes that the proposed alternative described above does provide an acceptable level of quality and safety. In addition, the licensee has maintained the coverage percentage requirements of Table IWB-2411-1 for the examinations, consistent with that for the 1st and 2nd ISI interval. The NRC staff believes this meets the "other considerations" clause in subsection IWA-2420(a). Therefore, the NRC staff finds the proposed alternative acceptable for the duration of the 3rd ISI interval.

4.0 CONCLUSION

The NRC staff has determined that granting Relief Request 3RR-18, pursuant to 10 CFR 50.55a(a)(3)(i) is authorized by law because the proposed alternative would provide an acceptable level of quality and safety. In addition, the missing examination record can be considered as meeting the "other considerations" clause in subsection IWA-2420(a), which would meet the requirements of IWA-2420(a).

Therefore, the NRC staff grants Relief Request 3RR-18 at SSES-2 for the third 10-year ISI interval for SSES-2 which began on June 1, 2004, and will end on May 31,2014.

All other ASME Code, Section XI requirements for which relief was not specifically requested and approved in the subject request for relief remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: P. Purtsher, NRR/EVIB

Date: February 23, 2012

Please contact me at (301) 415-1711, or the Project Manager, Bhalchandra K. Vaidya at (301) 415-3308, if you have any questions.

Sincerely,

/ra/

George A. Wilson, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-388

Enclosure:
Safety Evaluation

cc w/encl: Distribution via Listserv

DISTRIBUTION:

PUBLIC	LPL1-1 R/F	RidsNRRDorlLPl1-1
RidsNRRPMSusquehanna	RidsNrrLASLittle	RidsOGCRp
RidsNrrDEEvib	RidsNrrDorlDpr	RidsNrrDirsltsb
RidsAcrsAcnw&mMailCenter	RidsRg1MailCenter	LChang, EDO Region Contact
RidsOgcRp	PPurtsher, NRR/EVIB	

ADAMS Accession No.: ML12046A046 (*) No substantial change from SE Input Memo

OFFICE	LPL1-1\PM	LPL1-1\LA	NRR/EVIB/BC (*)	LPL1-1\BC	LPL1-1\PM
NAME	BVaidya	SLittle	SRosenberg	GWilson	BVaidya
DATE	02/23/12	02/22/12	02/14/12	02/23/12	02/23/12

OFFICIAL RECORD COPY