

August 10, 2001

Mr . Robert G. Byram
Senior Vice President
and Chief Nuclear Officer
PPL Susquehanna, LLC
2 North Ninth Street
Allentown, PA 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 - RELIEF
REQUEST NO. 23 (RR-23) FROM AMERICAN SOCIETY OF MECHANICAL
ENGINEERS BOILER AND PRESSURE VESSEL CODE (ASME CODE)
SECTION XI, (TAC NOS. MB2129 AND MB2130)

Dear Mr. Byram:

By letter dated June 5, 2001, as supplemented by letter dated July 25, 2001, you submitted Relief Request No. 23 (RR-23) from the requirements of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the ASME Code for the second 10-year inservice inspection (ISI) interval. The request was submitted pursuant to 10 CFR 50.55a(a)(3)(i) and proposed an alternative that would allow initial qualification, certification, and recertification of all nondestructive examination (NDE) personnel in accordance with the requirements contained in the 1995 edition, 1996 addenda of the ASME Code, Section XI. Initial qualification, certification, and recertification of all NDE personnel will be in accordance with the requirements contained in the American National Standards Institute/American Society for Nondestructive Testing CP-189, "Standard for Qualification and Certification of Nondestructive Testing Personnel," 1991 edition.

The Nuclear Regulatory Commission (NRC) staff reviewed the proposed relief request against the requirements of Section XI of the 1989 edition of the ASME Code, the Code of record for the Susquehanna Steam Electric Station (SSES) Units 1 and 2 second 10-year ISI interval. The results are provided in the enclosed safety evaluation. The NRC staff has concluded that the proposed alternative to the ASME Code requirements in RR-23 provides an acceptable level of quality and safety and is acceptable. Pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative RR-23 is authorized for the SSES Units 1 and 2 second 10-year ISI interval.

Sincerely,

/RA/ P.Tam for

Richard P. Correia, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure: Safety Evaluation

cc w/encl: See next page

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Units 1 & 2

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Docket Nos. 50-387 and 50-388
Enclosure: Safety Evaluation
cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SECOND 10-YEAR INTERVAL INSERVICE INSPECTION PROGRAM PLAN

REQUEST FOR RELIEF NO. RR-23

PPL SUSQUEHANNA, LLC

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 50-388

1.0 INTRODUCTION

The inservice inspection (ISI) of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) Class 1, Class 2, and Class 3 components is to be performed in accordance with Section XI of the ASME Code and applicable addenda as required by Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a(g), except where specific written relief has been granted by the Commission pursuant to 10 CFR 50.55a(g)(6)(i). Pursuant to 10 CFR 50.55a(a)(3), it is stated in part that alternatives to the requirements of paragraph (g) may be used, when authorized by the Nuclear Regulatory Commission (NRC), if the licensee demonstrates that (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.

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) will meet the requirements, except the design and access provisions and the preservice examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. The regulations require that inservice examination of components and system pressure tests conducted during the first 10-year interval and subsequent intervals comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein. The ISI Code of record for the Susquehanna Steam Electric Station (SSES), Units 1 and 2, second 10-year interval is the 1989 Edition of the ASME Code. The components (including supports) may meet the requirements set forth in subsequent editions and addenda of the ASME Code incorporated by reference in 10 CFR 50.55a(b) subject to the limitations and modifications listed therein and subject to Commission approval.

ENCLOSURE

By letter dated June 5, 2001, as supplemented by letter dated July 25, 2001, PPL Susquehanna, LLC (the licensee), requested relief from certain nondestructive examination (NDE) requirements pertaining to training during the second 10-year ISI interval at SSES, Units 1 and 2. RR-23 proposed using American National Standards Institute (ANSI)/American Society for Nondestructive Testing (ASNT) CP-189, "Standard for Qualification and Certification of Nondestructive Testing Personnel," 1991 Edition, in lieu of ANSI/ASNT SNT-TC-1A, "Personnel Qualification and Certification in Nondestructive Testing," 1984 Edition, for the qualification and certification of NDE personnel.

2.0 RR-23, IMPLEMENTATION OF CP-189

This relief request affects all components subject to NDE examination requirements after August 31, 2001.

2.1 Code Requirements for which Relief is Requested

The 1989 Edition of ASME Code Section XI, Subarticle IWA, identifies the qualification, certification, and re-certification requirements for NDE personnel as ASNT SNT-TC-1A, 1984 Edition.

2.2 Licensee's Proposed Alternative to Code

Initial qualification and certification of NDE personnel shall be conducted in accordance with the requirements contained in Subarticle IWA-2300 of the 1995 Edition, 1996 Addenda of ASME Section XI, which utilizes the CP-189 qualification and certification program. Personnel performing Subarticle IWA-2300 NDE examinations at the SSES shall meet the qualification and certification requirements for NDE personnel as required by CP-189.

The proposed alternative is for the SSES Units 1 and 2 second 10-year ISI interval.

2.3 Evaluation

The requirements of 10 CFR 50.55a(g)(6)(ii)(C) impose implementation of Appendix VIII to the 1995 Edition with 1996 Addenda of Section XI of the ASME Code. Appendix VIII references Appendix VII, which references Subarticle IWA-2300 of Section XI of the 1995 Edition with 1996 Addenda of the ASME Code. Subarticle IWA-2310 requires qualification of NDE examiners according to CP-189, 1991 Edition, as amended by the requirements of Division 1 of the Code. In a previously submitted relief request, RR-21, dated November 2, 2000, the licensee requested a delay in implementing CP-189 for all ultrasonic testing (UT) personnel until August 31, 2001. The staff authorized the request in a letter dated February 16, 2001. Without this relief request (RR-23), after August 31, 2001, the licensee would have to implement two separate programs for qualifying and certifying NDE personnel: one using CP-189 criteria for UT personnel and the second using SNT-TC-1A criteria for all other NDE personnel. Although both CP-189 and SNT-TC-1A contain the same topics for all NDE personnel, there may be conflicting program requirements, and as such, the licensee must make a concerted effort to keep the programs separate. This results in extra record keeping and could provide for confusion.

Beginning with the 1992 Edition and later Editions and Addenda of Section XI of the Code, all NDE personnel are required to be qualified and certified according to CP-189. The licensee has determined that implementing CP-189 for all its NDE personnel (not just UT personnel), is beneficial and would provide an acceptable level of quality and safety.

The NRC staff performed a detailed comparison of SNT-TC-1A and CP-189. CP-189 contains essentially everything that is in SNT-TC-1A and some additional requirements. For example, CP-189 has a larger definition of terms which are applicable to performance demonstrations than SNT-TC-1A, CP-189 requires written procedures detailing the program for qualifying and certifying UT personnel, and CP-189 requires Level III personnel to answer more questions in the method-specific examination (questions on specifications, equipment, techniques, and procedures) and to pass a performance demonstration. The changes from SNT-TC-1A to CP-189 are mostly programmatic and do not affect personnel skills.

The ASME Code has provided for an orderly transition from SNT-TC-1A to CP-189 with the continued recognition of certifications until re-certification is required. For Level I and II examiners, re-certification is every 3 years, and for Level III examiners, re-certification is every 5 years. Therefore, the staff finds the implementation of ASNT CP-189 for all NDE personnel provides an acceptable level of quality and safety.

3.0 CONCLUSION

Based on the discussion above, the NRC staff concludes that the proposed alternative will provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative is authorized for the SSES Units 1 and 2 second 10-year interval.

Principal Contributors: D. Naujock
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