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SUSQUEHANNA STEAM ELECTRIC STATION
UNITS 1 AND 2, LICENSE RENEWAL APPLICATION (LRA)
AMENDMENTS TO LRA AND RAI RESPONSES **Docket Nos. 50-387**
PLA-6457 **and 50-388**

References:

1) *PLA-6110, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "Application for Renewed Operating License Numbers NPF-14 and NPF-22," dated September 13, 2006.*

2) *PLA-6370, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "Units 1 and 2 Licensee Renewal Application (LRA) Amendment to Section 4.2.2," dated June 09, 2008.*

3) *PLA-6397, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "Request for Additional Information for the Review of the Susquehanna Steam Electric Station Units 1 and 2, License Renewal Application (LRA) Sections B.3.1, 4.3, and 4.7," dated August 01, 2008.*

4) *PLA-6413, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "Request for Additional Information for the Review of the Susquehanna Steam Electric Station Units 1 and 2, License Renewal Application (LRA) Section 2.5," dated August 29, 2008.*

5) *PLA-6428, Mr. B. T. McKinney (PPL) to Document Control Desk (USNRC), "Amendments to Sections 2.1.1, B.2.14, B.2.22, B.2.28, B.2.31, and B.2.46 in Response to NRC Regional Inspection," dated September 30, 2008.*

In accordance with the requirements of 10 CFR 50, 51, and 54, PPL requested the renewal of the operating licenses for the Susquehanna Steam Electric Station (SSES) Units 1 and 2 in Reference 1.

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NRR

The enclosure to this letter provides amendments to various sections of the SSES License Renewal Application (LRA) and changes to previously submitted responses to Requests for Additional Information (RAI). These changes are necessary to ensure consistency between impacted LRA sections and to update previously submitted information.

There are no new regulatory commitments contained herein. However, License Renewal Commitments #9, #24 and #36 are revised as shown in the enclosure.

If you have any questions, please contact Mr. Duane L Filchner at (610) 774-7819.

I declare, under penalty of perjury, that the foregoing is true and correct.

Executed on: 11-25-08

Richard D Paysinger for W.H. Spence

W. H. Spence

Enclosure: Amendments to SSES License Renewal Application (LRA) and Changes to RAI Responses

Copy: NRC Region I
Ms. E. H. Gettys, NRC Project Manager, License Renewal, Safety
Mr. R. Janati, DEP/BRP
Mr. F. W. Jaxheimer, NRC Sr. Resident Inspector
Mr. A. L. Stuyvenberg, NRC Project Manager, License Renewal, Environmental

Enclosure to PLA-6457
Amendments to SSES License Renewal Application (LRA) and Changes to RAI Responses

Therefore, the effects of neutron radiation have been evaluated, and all RPV beltline materials for Units 1 and 2 have been demonstrated to remain in compliance with Appendix G of 10 CFR 50 for the period of extended operation.

LRA Amendment Item 2

The SSES LRA was previously amended by Reference 5 to ensure the internal surfaces of the diesel generator starting air receivers are monitored for degradation. Page 4 of the enclosure to Reference 5 revised the "Scope of Program" element of the Supplemental Piping/Tank Inspection in LRA Section B2.28 (on LRA page B-88) to include the Diesel Generator starting air receiver tanks and E diesel compressor skid air receiver tanks. The corresponding change to LRA Appendix A, Table A-1, Item 24 was inadvertently omitted in the previous amendment. Therefore, the LRA is amended as follows to add the subject air receiver tanks to the scope of the Supplemental Piping/Tank Inspection in Appendix A, Table A-1, Item 24.

➢ The following line item in Appendix A, Table A-1, Item 24 (on LRA page A-42) is revised by addition (***bold italics***) to include the Diesel Generator starting air receiver tanks and E diesel compressor skid air receiver tanks, as follows:

Table A-1

SSES License Renewal Commitments

Item Number	Commitment	FSAR Supplement Location (LRA App. A)	Enhancement or Implementation Schedule
24) Supplemental Piping/Tank Inspection	Program is a new one-time inspection. The Supplemental Piping/Tank Inspection is credited for managing loss of material due to crevice and pitting corrosion on carbon steel surfaces at air-water interfaces. The inspection is also credited for managing loss of material due to microbiologically influenced corrosion (MIC) at the air-water interface with the mist eliminator loop seal, which is filled with raw water from the Service Water System, and galvanic corrosion at points of contact between the mist eliminator housing and the SGTS filter enclosure, where condensation and water pooling may occur. Additionally, the Supplemental Piping/Tank Inspection detects and characterizes whether, and to what extent, a loss of material due to crevice and pitting corrosion is occurring (or is likely to occur) for stainless steel surfaces at air-water interfaces. The Supplemental Piping/Tank Inspection also detects and characterizes loss of material due to crevice, galvanic, general, and pitting corrosion on internal carbon steel surfaces within the scram discharge volume (piping and valve bodies) of the Control Rod Drive Hydraulic System, ~~and~~-within the air space of the condensate storage tanks ***and within the Diesel Generator starting air receiver tanks and E diesel compressor skid air receiver tanks*** to determine whether, and to what extent, degradation is occurring (or is likely to occur).	A.1.2.46	Within the 10-year period prior to the period of extended operation.

LRA Amendment Item 3

The SSES LRA was previously amended by Reference 4 to expand the Station Blackout scoping boundary. Page 26 of Reference 4 revised the "Scope of Program" element of the Non-EQ Electrical Cables and Connections Visual Inspection Program in LRA Section B2.41 (on LRA page B-123) to include the cables and connections within the scope of license renewal located in the yard areas and control cubicles of the T10 230 kV Switchyard, the 500 kV Switchyard, and the 230 kV Switchyard. The corresponding change to LRA Appendix A, Table A-1, Item 36 was inadvertently omitted in the previous amendment. Therefore, the LRA is amended as follows to add the subject control circuits to the scope of the Non-EQ Electrical Cables and Connections Visual Inspection Program in Appendix A, Table A-1, Item 36.

➢ The following line item in Appendix A, Table A-1, Item 36 (on LRA page A-47) is revised by addition (***bold italics***) to include the cables and connections within the scope of license renewal located in the yard areas and control cubicles of the T10 230 kV Switchyard, the 500 kV Switchyard, and the 230 kV Switchyard, as follows:

Table A-1

SSES License Renewal Commitments

Item Number	Commitment	FSAR Supplement Location (LRA App. A)	Enhancement or Implementation Schedule
36) Non-EQ Electrical Cables and Connections Visual Inspection Program	Program is new. The Non-EQ Electrical Cables and Connections Visual Inspection Program is credited with detecting aging effects from adverse localized environments in non-EQ cables and connections at SSES. The program is applicable to non-EQ cables and connections found in the Reactor Buildings, Circulating Water Pumphouse and Water Treatment Building, Control Structure, Diesel Generator Buildings, Turbine Building, Engineered Safeguards Service Water Pumphouse, and various yard structures (manholes, duct banks, valve vaults, instrument pits, etc.). ***This program is also applicable to the cables and connections within the scope of license renewal located in the yard areas and control cubicles of the T10 230 kV Switchyard, the 500 kV Switchyard, and the 230 kV Switchyard.***	A.1.2.35	Prior to the period of extended operation.

LRA Amendment Item 4

PPL's response to RAI 4.3-4 submitted via Reference 3 included reference to BWRVIP-183. Because BWRVIP-183 has not been approved by the NRC, the staff has requested that the reference to it be removed from the RAI response. The following revised response is a complete replacement for the previous response submitted in Reference 3.

RAI 4.3.-4:

BWR Vessel Internals Program is credited to manage the effects of aging for the reactor vessel internals. However, this AMP only inspects the top guide for the first twelve years of period of extended operation. Top guide is subject to irradiation assisted stress corrosion cracking, state how this aging effect will be managed for the remainder for the period of extended operation.

PPL Response:

During the period of extended operation, the aging of the top guide will be managed by inspections conducted as part of the SSES BWR Vessel Internals Program. Since submittal of the SSES LRA in Reference 1, the SSES BWR Vessel Internals Program has been revised to include requirements to inspect the top guide. The SSES BWR Vessel Internals Program now requires that at least 10% of the grid beam cells containing control rod drives/blades will be inspected every twelve years with at least 5% of the inspections being performed within the first six years of each twelve year interval. The top guide locations to be inspected are those subject to neutron fluence levels that exceed the IASCC threshold of 5.0E+20 n/cm^2. The inspections will be performed using the enhanced visual inspection technique, EVT-1.

PPL will continue to perform inspections on at least 10% of the top guide locations every twelve years during the period of extended operation.

Since the SSES BWR Vessel Internals Program has been revised to make it consistent with NUREG-1801, XI.M9, the enhancement to the BWR Vessel Internals Program described in the SSES LRA is not needed. The SSES LRA is amended to remove the enhancement from LRA Section A.1.2.10, LRA Table A-1 (Commitment #9), LRA Section B.2.9, and LRA Table B-2.

A.1.2.10 BWR Vessel Internals Program

➢ The discussion of the SSES BWR Vessel Internals Program in Section A.1.2.10 (LRA page A-8) is revised by deletion (~~strikethrough~~) as follows:

~~Prior to the period of extended operation, the BWR Vessel Internals Program will be enhanced to require specific enhanced visual examinations of top guide locations subjected to high neutron fluence.~~

Table A-1 SSES License Renewal Commitments

➢ The commitment for the SSES BWR Vessel Internals Program in Table A-1, Item 9 (LRA A-35) is revised by addition (***bold italics***) and deletion (~~strikethrough~~) as follows:

Table A-1
SSES License Renewal Commitments

Item Number	Commitment	FSAR Supplement Location (LRA App. A)	Enhancement or Implementation Schedule
9) BWR Vessel Internals Program	Existing program is credited. ~~with the following enhancement: • Include requirements to inspect five percent of the top guide locations within six years after entering the period of extended operation and an additional five percent of the top guide locations within twelve years after entering the period of extended operation. The top guide locations to be inspected are those subject to neutron fluence levels that exceed the IASCC threshold of 5.0E+20 n/cm2. The inspections shall be performed using the enhanced visual inspection technique, EVT-1. The extent of the examination and its frequency will be based on a ten percent sample of the total population, which includes all grid beam and beam to beam crevice slots.~~	A.1.2.10	~~Prior to the period of extended operation.~~ ***Ongoing***

B.2.9 BWR Vessel Internals Program

➢ The discussion under the NUREG-1801 Consistency and Required Enhancements in LRA Section B.2.9 (LRA page B-34) is revised by addition (***bold italics)*** and deletion (~~strikethrough~~) as follows:

NUREG-1801 Consistency

The BWR Vessel Internals Program is an existing SSES program ~~that, with enhancement, will be~~ ***that is*** consistent with the 10 elements of an effective aging management program as described in NUREG-1801, Section XI.M9, "BWR Vessel Internals."

Exceptions to NUREG-1801

None.

Required Enhancements

None.
~~Prior to the period of extended operation the enhancements listed below will be implemented in the identified program element:~~

~~**• Scope of Program –**~~

~~The program will include requirements to inspect five percent of the top guide locations within six years after entering the period of extended operation and an additional five percent of the top guide locations within twelve years after entering the period of extended operation. The top guide locations to be inspected are those subject to neutron fluence levels that exceed the IASCC threshold of 5.0E+20 n/cm2. The inspections shall be performed using the enhanced visual inspection technique, EVT-1. The extent of the examination and its frequency will be based on a ten percent sample of the total population, which includes all grid beam and beam-to-beam crevice slots.~~

Table B-2 Consistency of SSES Aging Management Programs with NUREG-1801

➢ LRA Table B-2 (LRA page B-14) is revised by addition (***bold italics)*** and deletion (~~strikethrough~~) as follows:

Table B-2
Consistency of SSES Aging Management Programs with NUREG-1801

Program Name	New / Existing	Consistent with NUREG-1801	Exceptions to NUREG-1801	Plant-Specific	Enhancement Required
BWR Vessel ID Attachment Welds Program	Existing	Yes	--	--	--
BWR Vessel Internals Program	Existing	Yes	--	--	~~Yes~~ --
BWR Water Chemistry Program	Existing	Yes	--	--	--