

June 23, 2008

Mr. Britt T. McKinney
Sr. Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2, LICENSE
RENEWAL APPLICATION

Dear Mr. McKinney:

By letter dated September 13, 2006, PPL Susquehanna, LLC submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), to renew the operating licenses for Susquehanna Steam Electric Station, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Duane Filchner, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-4029 or e-mail evelyn.gettys@nrc.gov.

Sincerely,

\RA\

Evelyn Gettys, Project Manager
Project Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:
As stated

cc w/encl: See next page

June 23, 2008

Mr. Britt T. McKinney
Sr. Vice President and Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2, LICENSE
RENEWAL APPLICATION

Dear Mr. McKinney:

By letter dated September 13, 2006, PPL Susquehanna, LLC submitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), to renew the operating licenses for Susquehanna Steam Electric Station, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review. Further requests for additional information may be issued in the future.

Items in the enclosure were discussed with Duane Filchner, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-4029 or e-mail evelyn.gettys@nrc.gov.

Sincerely,

\RA\

Evelyn Gettys, Project Manager
Project Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure:

As stated

cc w/encl: See next page

DISTRIBUTION: See next page

ADAMS Accession Number: ML081650217

OFFICE	LA:DLR	PM:RPB1:DLR	PM:RER1:DLR	BC: RPB1:DLR
NAME	SFigureora	EGettys	KChang (JMedoff for)	BPham
DATE	6/16/08	6/17/08	6/19/08	6/23/08

OFFICIAL RECORD COPY

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
REQUEST FOR ADDITIONAL INFORMATION

RAI B.2.2-01:

The LRA states that AMP B.2.2, BWR Water Chemistry, is an existing program that is consistent with the GALL Report. However, on-site documentation identifies the following differences from recommendations in (Electric Power Research Institute) EPRI TR-103515, BWR Water Chemistry Guidelines, which is a basis for the GALL Report AMP XI.M2, Water Chemistry:

- 1) EPRI TR-103515 recommends continuous monitoring of local electrochemical corrosion potential (ECP) during reactor power operation (>10% rated power). However, in lieu of monitoring for ECP, SSES currently relies on monitoring of dissolved oxygen for indication of relevant conditions for corrosion.
- 2) EPRI TR-103515 recommends weekly monitoring of conductivity, chlorides, and sulfate in the Condensate Storage Tank (CST). However, SSES currently measures conductivity, chlorides and sulfate in the CST on a monthly basis.

Please provide a technical justification as to why these deviations from recommendations in EPRI TR-103515 are acceptable. Also, please provide an explanation of why these deviations are not considered to be exceptions to the recommendations in the GALL Report.

RAI B.2.2-02:

In review of on-site documentation related to water chemistry operating experience, the staff noted that SSES has a history of corrective action reports and actions related to high sulfate levels in reactor water following refueling outages. Please provide a discussion of SSES's activities related to understanding and mitigating this chemistry program issue and include the cause of the problem, corrective actions taken and comparison of SSES performance with other BWRs having similar condensate demineralizers. Please include how long the high sulfate levels were in affect before the level was reduced to acceptable concentrations.

RAI B.2.20-01:

The LRA takes an exception to recommendations in the GALL Report for AMP XI.M30, Fuel Oil Chemistry program element, "monitoring and trending," which recommends that water and biological activity or particulate contamination concentrations be monitored and trended in accordance with the plant's technical specifications or at least quarterly. The exception is that SSES uses an annual frequency to sample fuel oil for biological activity. SSES technical specifications for the Diesel Fuel Oil Testing Program state that "the program shall include sampling and testing requirements and acceptance criteria, following the guidelines of the applicable American Society for Testing and Materials (ASTM) Standards."

- a) What ASTM standard is used by SSES to establish the frequency for monitoring fuel oil for biological activity?
- b) If there is no applicable ASTM standard or the applicable standard is not being used, then please provide the basis for the current sampling frequency and provide a technical justification that the current sampling schedule for biological activity in the fuel oil, which is less frequent than recommended in the GALL Report, provides adequate aging management during the period of extended operation.

RAI B.2.22-01:

In the LRA's description of the "monitoring and trending" program element for the AMP B.2.22 Chemistry Program Effectiveness Inspection, reference is made to future engineering evaluations to determine sample size and components to be examined by this one-time inspection program.

- a) Please describe the methodology that will be used to select sample sizes and sample locations for various components included in the Chemistry Program Effectiveness Inspection.
- b) Please explain what methodology or basis will be used to determine the sample size if unanticipated aging effects are found.

RAI B.22-02:

In the acceptance criteria of the GALL Report AMP XI.M32 states that any indication or relevant conditions of degradation detected are evaluated. LRA Selection B.2.22 states that the acceptance criterion of the Chemistry Program Effectiveness Inspection will be no unacceptable loss of material or cracking of stainless steel exposed to temperatures above 140 deg-F, that could result in a loss of component intended function during the period of extended operation, as determined by engineering evaluation. Please explain why the acceptance criteria for B.2.22 differ from the recommendations of the GALL Report and clarify what "no unacceptable loss of material or cracking" means.

Susquehanna Steam Electric
Units 1 and 2

cc:

Cornelius J. Gannon
Vice President - Nuclear Operations
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

Robert M. Paley
General Manager - Plant Support
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB2
Berwick, PA 18603-0467

Rocco R. Sgarro
Manager - Nuclear Regulatory Affairs
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Supervisor - Nuclear Regulatory Affairs
PPL Susquehanna, LLC
769 Salem Blvd., NUCSA4
Berwick, PA 18603-0467

Michael H. Crowthers
Supervisor - Nuclear Regulatory Affairs
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Ronald E. Smith
General Manager - Site Preparedness
and Services
PPL Susquehanna, LLC
769 Salem Blvd., NUCSA4
Berwick, PA 18603-0467

Regional Administrator, Region 1
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Michael H. Rose
Manager - Quality Assurance
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB2
Berwick, PA 18603-0467

Joseph J. Scopelliti
Community Relations Manager,
Susquehanna
PPL Susquehanna, LLC
634 Salem Blvd., SSO
Berwick, PA 18603-0467

Bryan A. Snapp, Esq.
Associate General Counsel
PPL Services Corporation
Two North Ninth Street, GENTW3
Allentown, PA 18101-1179

Document Control Services
PPL Susquehanna, LLC
Two North Ninth Street, GENPL4
Allentown, PA 18101-1179

Richard W. Osborne
Allegheny Electric Cooperative, Inc.
212 Locust Street
P.O. Box 1266
Harrisburg, PA 17108-1266

Director, Bureau of Radiation Protection
Pennsylvania Department of
Environmental Protection
Rachel Carson State Office Building
P.O. Box 8469
Harrisburg, PA 17105-8469

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
P.O. Box 35, NUCSA4
Berwick, PA 18603-0035

Susquehanna Steam Electric Station - 2 -
Units 1 and 2

cc:

Board of Supervisors
Salem Township
P.O. Box 405
Berwick, PA 18603-0035

Dr. Judith Johnsrud
National Energy Committee
Sierra Club
443 Orlando Avenue
State College, PA 16803

Letter to B. McKinney from E. Gettys, dated June 23, 2008

DISTRIBUTION:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2, LICENSE
RENEWAL APPLICATION

HARD COPY:

DLR RF

E-MAIL:

PUBLIC

RidsNrrDlr

RidsNrrDlrRpb1

RidsNrrDlrRler2

RidsNrrDlrRer1

RidsNrrDlrRerb

RidsNrrDlrRpb2

RidsNrrDciCvib

RidsNrrDciCpnb

RidsNrrDraAfpb

RidsNrrDeEmcb

RidsNrrDeEeeb

RidsNrrDssSrxb

RidsNrrDssSbpb

RidsNrrDssScvb

RidsOgcMailCenter

EGettys

FJaxheimer