



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

August 31, 2006

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

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
SUSQUEHANNA STEAM ELECTRIC STATION

Dear Mr. McKinney:

On August 7, 2006, the NRC staff completed its performance review of Susquehanna Steam Electric Station for the first half of the calendar year 2006 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous twelve months. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Plant performance for the most recent quarter at Susquehanna Units 1 and 2 was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility. We also plan on conducting an inspection associated with power uprate activities.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through March 31, 2008. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle review.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 610-337-5186 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

James M. Trapp, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos. 50-387; 50-388  
License Nos. NPF-14, NPF-22

Enclosure: Susquehanna Inspection/ Activity Plan

cc w/encl:

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Director - Bureau of Radiation Protection, PA Department of Environmental Protection  
Board of Supervisors, Salem Township  
J. Johnsrud, National Energy Committee

B. McKinney

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Sincerely,  
/RA/  
James M. Trapp, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos. 50-387; 50-388  
License Nos. NPF-14, NPF-22

Enclosure: Susquehanna Inspection/ Activity Plan

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**SUNSI Review Complete:**       CBK       (Reviewer's Initials)

DOCUMENT NAME: S:\ROP 7 Mid Cycle Review\2006 ROP7 Mid-Cycle Letters\SUS 2006 Mid-Cycle Letter.wpd  
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|        |             |          |           |   |
|--------|-------------|----------|-----------|---|
| OFFICE | RI/DRP      | RI/DRP   | RI/DRP    | E |
| NAME   | ABlamey/CBK | CKhan    | JTrapp    |   |
| DATE   | 08/28/06    | 08/28/06 | 08/28 /06 |   |

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**Susquehanna**  
**Inspection / Activity Plan**  
**07/01/2006 - 03/31/2008**

| Unit Number | Inspection Activity  | Title   | No. of Staff on Site | Planned Dates Start End | Inspection Type      |
|-------------|--|---|----------------------|-------------------------|----------------------|
|             | <b>ISFSI - ISFSI</b>                                       |   | <b>2</b>             |                         |                      |
| 1, 2        | IP 60855.1   | Operation of an Independent Spent Fuel Storage Installation at Operating Plants |                      | 05/01/2006 07/15/2006   | Other Routine        |
|             | <b>60855 - OPERATION OF AN ISFSI</b>                       |   | <b>3</b>             |                         |                      |
| 1, 2        | IP 60855.1   | Operation of an Independent Spent Fuel Storage Installation at Operating Plants |                      | 06/12/2006 08/30/2006   | Other Routine        |
|             | <b>71121 - OCC RAD SAFETY</b>                              |   | <b>1</b>             |                         |                      |
| 1, 2        | IP 7112101   | Access Control to Radiologically Significant Areas                              |                      | 08/14/2006 08/18/2006   | Baseline Inspections |
| 1, 2        | IP 7112102   | ALARA Planning and Controls   |                      | 08/14/2006 08/18/2006   | Baseline Inspections |
| 1, 2        | IP 7112103   | Radiation Monitoring Instrumentation and Protective Equipment                   |                      | 08/14/2006 08/18/2006   | Baseline Inspections |
| 1, 2        | IP 71151   | Performance Indicator Verification  |                      | 08/14/2006 08/18/2006   | Baseline Inspections |
|             | <b>7111401 - EXERCISE EVALUATION &amp; PI VERIFICATION</b> |   | <b>4</b>             |                         |                      |
| 1, 2        | IP 7111401   | Exercise Evaluation   |                      | 09/18/2006 09/22/2006   | Baseline Inspections |
| 1, 2        | IP 71151   | Performance Indicator Verification  |                      | 09/18/2006 09/22/2006   | Baseline Inspections |
|             | <b>TI-169 - TI: MSPI VERIFICATION</b>                      |   | <b>1</b>             |                         |                      |
| 1, 2        | IP 2515/169  | Mitigating Systems Performance Index Verification                               |                      | 10/30/2006 11/10/2006   | Safety Issues        |
|             | <b>7112202 - PUB RAD SAFETY - RADWASTE</b>                 |   | <b>1</b>             |                         |                      |
| 1, 2        | IP 7112202   | Radioactive Material Processing and Transportation                              |                      | 11/27/2006 12/01/2006   | Baseline Inspections |
|             | <b>P UPRATE - POWER UPRATE FOR UNIT 2</b>                  |   | <b>3</b>             |                         |                      |
| 2           | IP 71004   | Power Uprate  |                      | 01/01/2007 03/31/2007   | Other Routine        |
|             | <b>71114 - EP PRGM INSP</b>                                |   | <b>2</b>             |                         |                      |
| 1, 2        | IP 7111402   | Alert and Notification System Testing   |                      | 02/05/2007 02/09/2007   | Baseline Inspections |
| 1, 2        | IP 7111403   | Emergency Response Organization Augmentation Testing                            |                      | 02/05/2007 02/09/2007   | Baseline Inspections |
| 1, 2        | IP 7111404   | Emergency Action Level and Emergency Plan Changes                               |                      | 02/05/2007 02/09/2007   | Baseline Inspections |
| 1, 2        | IP 7111405   | Correction of Emergency Preparedness Weaknesses and Deficiencies                |                      | 02/05/2007 02/09/2007   | Baseline Inspections |
| 1, 2        | IP 71151   | Performance Indicator Verification  |                      | 02/05/2007 02/09/2007   | Baseline Inspections |
|             | <b>7111107 - HEAT SINK INSP</b>                            |   | <b>2</b>             |                         |                      |
| 1, 2        | IP 7111107B  | Heat Sink Performance   |                      | 03/05/2007 03/09/2007   | Baseline Inspections |
|             | <b>71121 - OCC RAD SAFETY</b>                              |   | <b>1</b>             |                         |                      |
| 2           | IP 7112101   | Access Control to Radiologically Significant Areas                              |                      | 03/12/2007 03/16/2007   | Baseline Inspections |
| 2           | IP 7112102   | ALARA Planning and Controls   |                      | 03/12/2007 03/16/2007   | Baseline Inspections |
| 2           | IP 7112103   | Radiation Monitoring Instrumentation and Protective Equipment                   |                      | 03/12/2007 03/16/2007   | Baseline Inspections |
|             | <b>7111108G - IN SERVICE INSPECTION</b>                    |   | <b>2</b>             |                         |                      |
| 2           | IP 7111108G  | Inservice Inspection Activities - BWR   |                      | 03/19/2007 03/23/2007   | Baseline Inspections |
|             | <b>71121 - OCC RAD SAFETY</b>                              |   | <b>1</b>             |                         |                      |
| 1, 2        | IP 7112101   | Access Control to Radiologically Significant Areas                              |                      | 05/07/2007 05/11/2007   | Baseline Inspections |
| 1, 2        | IP 7112102   | ALARA Planning and Controls   |                      | 05/07/2007 05/11/2007   | Baseline Inspections |

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

**Susquehanna**  
**Inspection / Activity Plan**  
**07/01/2006 - 03/31/2008**

| Unit Number | Inspection Activity                                       | Title  | No. of Staff on Site | Planned Dates Start | Planned Dates End | Inspection Type      |
|-------------|---|--|----------------------|---------------------|-------------------|----------------------|
|             | <b>71121 - OCC RAD SAFETY</b>                             |  | <b>1</b>             |                     |                   |                      |
| 1, 2        | IP 7112103  | Radiation Monitoring Instrumentation and Protective Equipment                            |                      | 05/07/2007          | 05/11/2007        | Baseline Inspections |
|             | <b>7111121 - CDBI (COMPONENT DESIGN BASES INSPECTION)</b> |  | <b>6</b>             |                     |                   |                      |
| 1           | IP 7111121  | Component Design Bases Inspection  |                      | 05/21/2007          | 05/25/2007        | Baseline Inspections |
| 1, 2        | IP 7111121  | Component Design Bases Inspection  |                      | 06/04/2007          | 06/08/2007        | Baseline Inspections |
| 1, 2        | IP 7111121  | Component Design Bases Inspection  |                      | 06/18/2007          | 06/22/2007        | Baseline Inspections |
| 1, 2        | IP 7111121  | Component Design Bases Inspection  |                      | 06/25/2007          | 06/29/2007        | Baseline Inspections |
|             | <b>7112203 - PUB RAD SAFETY - REMP</b>                    |  | <b>1</b>             |                     |                   |                      |
| 1, 2        | IP 7112203  | Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Pr |                      | 06/18/2007          | 06/22/2007        | Baseline Inspections |
|             | <b>7111111B - L.O. REQUAL. PROG. + P/F REVIEW</b>         |  | <b>3</b>             |                     |                   |                      |
| 1, 2        | IP 7111111B   | Licensed Operator Requalification Program  |                      | 09/25/2007          | 09/29/2007        | Baseline Inspections |
| 1, 2        | IP 7111111B   | Licensed Operator Requalification Program  |                      | 10/02/2007          | 10/06/2007        | Baseline Inspections |
|             | <b>12/10+EX - OPERATOR LICENSING INITIAL EXAMS</b>        |  | <b>4</b>             |                     |                   |                      |
| 1           | U01629  | SUSQUEHANNA UNIT 1 & 2 INITIAL EXAM (FY08)   |                      | 11/12/2007          | 11/16/2007        | Not Applicable       |
| 1           | U01629  | SUSQUEHANNA UNIT 1 & 2 INITIAL EXAM (FY08)   |                      | 12/10/2007          | 12/21/2007        | Not Applicable       |
|             | <b>71121 - OCC RAD SAFETY</b>                             |  | <b>1</b>             |                     |                   |                      |
| 1, 2        | IP 7112101  | Access Control to Radiologically Significant Areas                                       |                      | 11/26/2007          | 11/30/2007        | Baseline Inspections |
| 1, 2        | IP 7112102  | ALARA Planning and Controls  |                      | 11/26/2007          | 11/30/2007        | Baseline Inspections |
| 1, 2        | IP 7112103  | Radiation Monitoring Instrumentation and Protective Equipment                            |                      | 11/26/2007          | 11/30/2007        | Baseline Inspections |
| 1, 2        | IP 71151  | Performance Indicator Verification   |                      | 11/26/2007          | 11/30/2007        | Baseline Inspections |
|             | <b>71152B - PI&amp;R</b>                                  |  | <b>4</b>             |                     |                   |                      |
| 1, 2        | IP 71152B   | Identification and Resolution of Problems  |                      | 01/14/2008          | 01/18/2008        | Baseline Inspections |
| 1, 2        | IP 71152B   | Identification and Resolution of Problems  |                      | 01/28/2008          | 02/01/2008        | Baseline Inspections |
|             | <b>7112201 - PUB RAD SAFETY - RETS</b>                    |  | <b>1</b>             |                     |                   |                      |
| 1, 2        | IP 7112201  | Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems                 |                      | 02/11/2008          | 02/15/2008        | Baseline Inspections |
|             | <b>71121 - OCC RAD SAFETY</b>                             |  | <b>1</b>             |                     |                   |                      |
| 1, 2        | IP 7112101  | Access Control to Radiologically Significant Areas                                       |                      | 03/10/2008          | 03/14/2008        | Baseline Inspections |
| 1, 2        | IP 7112102  | ALARA Planning and Controls  |                      | 03/10/2008          | 03/14/2008        | Baseline Inspections |
| 1, 2        | IP 7112103  | Radiation Monitoring Instrumentation and Protective Equipment                            |                      | 03/10/2008          | 03/14/2008        | Baseline Inspections |

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