

March 3, 2003

Mr. Bryce L. Shriver
Senior Vice President and
Chief Nuclear Officer
PPL Susquehanna, LLC
769 Salem Blvd., NUCSB3
Berwick, PA 18603-0467

SUBJECT: ANNUAL ASSESSMENT LETTER - SUSQUEHANNA STEAM ELECTRIC
STATION (REPORT 50-387/03-01, 50-388/03-01)

Dear Mr. Shriver:

On February 6, 2003, the NRC staff completed its end-of-cycle plant performance assessment of the Susquehanna Steam Electric Station Units 1 and 2. The end-of-cycle review for Susquehanna involved the participation of all technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2002. 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 so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

Overall, both of the Susquehanna units operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter 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 only baseline inspections at your facility through March 31, 2004.

While Susquehanna's plant performance for the most recent quarter is within the Licensee Response Column of NRC's Action Matrix, there was a safety significant inspection finding during the first three quarters of the assessment cycle where plant performance was within the Regulatory Response Column of NRC's Action Matrix. The one inspection finding of low to moderate safety significance (White) was in the Emergency Preparedness cornerstone and affected both units. The inspection finding involved several occurrences wherein on-shift staffing was below the minimum staffing requirements specified in the Emergency Plan. This White finding was considered for six quarters, rather than the normal four quarters, because of issues associated with PPL's root cause assessment of the White inspection finding. We conducted two supplemental inspections regarding this White finding. The first supplemental inspection concluded that PPL's root cause analysis was narrowly focused and, as a result, we did not have reasonable assurance that PPL's corrective actions would prevent recurrence. We performed a second supplemental inspection after PPL performed a second root cause analysis. In our second supplemental inspection we concluded that PPL had performed a

sufficiently broad evaluation and PPL's actual and planned corrective actions were adequate to address the underlying causes of the White finding.

Additionally, the staff has identified a substantive cross-cutting issue at Susquehanna in the area of human performance. The substantive cross-cutting issue is based on the multiple findings with a common performance deficiency of operators' failure to implement procedures. Our inspection activities documented eight findings of very low safety significance (Green) where operators did not properly implement PPL procedures. These included findings in the Barrier Integrity, Mitigating Systems, and Emergency Preparedness cornerstones. Examples included procedures which controlled 125VDC emergency control power to an emergency diesel generator and emergency service water pumps, seismic protection of 4kV emergency switchgear, reactor water cleanup spent resin transfer, and evaluation and communication of plant conditions during a declared Unusual Event. Although PPL developed a number of initiatives early in 2002 to address operator procedure implementation problems, PPL has not made substantial progress to improve procedure content and standards. Effective actions to reduce human performance errors related to operators' procedure implementation are important because the errors can affect the operability, availability, reliability of risk-significant equipment, and could initiate plant transients during normal and emergency plant operation. We will focus on PPL's progress in addressing this substantive cross-cutting performance issue during our normal baseline inspection program.

Also, on January 13, 2003, the staff issued a Severity Level III Notice of Violation in accordance with the enforcement policy for a problem that occurred on July 26, 2002. Specifically, after PPL loaded a Dry Shielded Canister with 52 spent fuel bundles, PPL incorrectly backfilled the canister with argon gas, rather than helium gas as required by the Certificate of Compliance. In our letter transmitting the violation, we indicated that the staff accepted PPL's corrective action for the violation.

The enclosed inspection plan details the inspections scheduled through March 31, 2004. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last six months of the inspection plan are tentative and may be revised after our mid-cycle review meeting.

As you are aware, since the terrorist attacks on September 11, 2001, the NRC has issued several Orders and threat advisories to enhance security capabilities and improve guard force readiness. We have conducted inspections to review your implementation of these requirements and have monitored your actions in response to changing threat conditions. For calendar year 2003, we plan to continue these inspections, conduct portions of the security baseline inspection program, as well as perform additional inspections to evaluate your compliance with new requirements that may be ordered. Based on our final determinations in this regard, we will notify you of any inspection plan changes.

In accordance with 10 CFR 2.790 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

Mr. Bryce L. Shriver

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(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 Dr. Mohamed Shanbaky of my staff at 610-337-5209 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

A. Randolph Blough, Director
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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|--------|-------------------|-----------------|---------------|
| OFFICE | RI/DRP | RI/DRP | RI/DRP |
| NAME | DFlorek /MMS for/ | MShanbaky /MMS/ | ABlough /ARB/ |
| DATE | 03/03/03 | 03/03/03 | 02/28/03 |

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Susquehanna
Inspection / Activity Plan
12/29/2002 - 03/27/2004

| Unit Number | Inspection Activity | Title | No. of Staff on Site | Planned Dates | | Inspection Type |
|----------------|---|--|-------------------------|---------------|------------|----------------------|
| | | | | Start | End | |
| | 7112102 - OCC RAD SAFETY - ALARA | | 1 | | | |
| 1, 2 | IP 7112102 | ALARA Planning and Controls | | 02/10/2003 | 02/11/2003 | Baseline Inspections |
| | 71122.03 - REMP | | 1 | | | |
| 1, 2 | IP 7112203 | Radiological Environmental Monitoring Program | | 03/03/2003 | 03/07/2003 | Baseline Inspections |
| | 71121 - OCC RAD SAFETY | | 1 | | | |
| 1, 2 | IP 7112101 | Access Control to Radiologically Significant Areas | | 03/17/2003 | 03/21/2003 | Baseline Inspections |
| 1, 2 | IP 7112102 | ALARA Planning and Controls | | 03/17/2003 | 03/21/2003 | Baseline Inspections |
| | 7111108 - INSERVICE INSPECTION | | 1 | | | |
| 2 | IP 7111108G | Inservice Inspection Activities - BWR | | 03/24/2003 | 03/28/2003 | Baseline Inspections |
| | 7111107B - HEAT SINK | | 1 | | | |
| 1, 2 | IP 7111107B | Heat Sink Performance | | 04/14/2003 | 04/18/2003 | Baseline Inspections |
| | 71151 - EP PI VERIFICATION | | 1 | | | |
| 1, 2 | IP 71151 | Performance Indicator Verification | | 04/21/2003 | 04/25/2003 | Baseline Inspections |
| | T1148BC - SEC ICM | | 6 | | | |
| 1, 2 | IP 2515/148 | Inspection of Nuclear Reactor Safeguards - Interim Compensatory Measures | | 04/21/2003 | 04/25/2003 | Safety Issues |
| | 7111121 - SSDI | | 6 | | | |
| 1, 2 | IP 7111121 | Safety System Design and Performance Capability | | 04/28/2003 | 05/02/2003 | Baseline Inspections |
| 1, 2 | IP 7111121 | Safety System Design and Performance Capability | | 05/12/2003 | 05/16/2003 | Baseline Inspections |
| | 8/11 EXM - OPERATOR LICENSING INITIAL EXAMS | | 3 | | | |
| 1 | U01501 | SUSQUEHANNA 1&2 INITIAL EXAM (7/28/03) | | 07/07/2003 | 07/11/2003 | Not Applicable |
| 1 | U01501 | SUSQUEHANNA 1&2 INITIAL EXAM (7/28/03) | | 08/11/2003 | 08/15/2003 | Not Applicable |
| | 71122.02 - RADWASTE | | 1 | | | |
| 1, 2 | IP 7112202 | Radioactive Material Processing and Transportation | | 08/04/2003 | 08/08/2003 | Baseline Inspections |
| | 71121.01 - OCC RAD SAFETY | | 1 | | | |
| 1, 2 | IP 7112101 | Access Control to Radiologically Significant Areas | | 09/29/2003 | 10/03/2003 | Baseline Inspections |
| 1, 2 | IP 7112102 | ALARA Planning and Controls | | 09/29/2003 | 10/03/2003 | Baseline Inspections |
| 1, 2 | IP 71151 | Performance Indicator Verification | | 09/29/2003 | 10/03/2003 | Baseline Inspections |
| | 7111111B - L O REQUALIFICATION INSPECTION | | 2 | | | |
| 1, 2 | IP 7111111B | Licensed Operator Requalification | | 10/06/2003 | 10/10/2003 | Baseline Inspections |
| | 7111112B - MAINTENANCE RULE | | 1 | | | |
| 1, 2 | IP 7111112B | Maintenance Effectiveness | | 12/15/2003 | 12/19/2003 | Baseline Inspections |
| | 71152B - PROBLEM IDENTIFICATION AND RESOLUTION | | 4 | | | |
| 1, 2 | IP 71152B | Identification and Resolution of Problems | | 01/12/2004 | 01/16/2004 | Baseline Inspections |
| 1, 2 | IP 71152B | Identification and Resolution of Problems | | 01/26/2004 | 01/30/2004 | 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
12/29/2002 - 03/27/2004

| Unit Number | Inspection Activity | Title | No. of Staff on Site | Planned Dates | | Inspection Type |
|----------------|---------------------|--|-------------------------|---------------|------------|----------------------|
| | | | | Start | End | |
| | 71121 | - OCC RAD SAFETY - ALARA | 1 | | | |
| 1, 2 | IP 7112102 | ALARA Planning and Controls | | 02/09/2004 | 02/13/2004 | Baseline Inspections |
| | 7111108G | - INSERVICE INSPECTION | 1 | | | |
| 1 | IP 7111108G | Inservice Inspection Activities - BWR | | 03/08/2004 | 03/12/2004 | Baseline Inspections |
| | 7111117B | - PERMANENT PLANT MODS | 3 | | | |
| 1, 2 | IP 7111102 | Evaluation of Changes, Tests, or Experiments | | 03/15/2004 | 03/19/2004 | Baseline Inspections |
| 1, 2 | IP 7111117B | Permanent Plant Modifications | | 03/15/2004 | 03/19/2004 | Baseline Inspections |

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