

March 31, 2000

Mr. Robert Byram
Senior Vice President - Nuclear
PPL, INC.
Susquehanna Steam Electric Station
2 North Ninth Street
Allentown, Pennsylvania 18101

SUBJECT: PLANT PERFORMANCE REVIEW (PPR) - SUSQUEHANNA STEAM
ELECTRIC STATION

The purpose of this letter is to communicate our assessment of your performance and to inform you of our planned inspections at your facility. On February 25, 2000, we completed a Plant Performance Review (PPR) of the Susquehanna Steam Electric Station. We conduct these reviews to develop an integrated overview of the safety performance of each operating nuclear power plant. We use the results of the PPR in planning and allocating inspection resources and as inputs to our senior management meeting (SMM) process. This PPR evaluated inspection results and safety performance information for the period from January 16, 1999, to January 31, 2000, but emphasized the last six months to ensure that our assessment reflected your current performance. Our most recent summary of plant performance at Susquehanna was provided to you in a letter dated April 9, 1999, and was discussed with you in a public meeting on July 14, 1999.

The NRC has been developing a revised reactor oversight process that will replace our existing inspection and assessment processes including the PPR, the SMM, and the Systematic Assessment of Licensee Performance (SALP). We recently completed a pilot program for the revised reactor oversight process at nine participating sites and are making necessary adjustments based on feedback and lessons learned. We plan to begin initial implementation of the revised reactor oversight process industry-wide on April 2, 2000.

This PPR reflects continued NRC process improvements as we make the transition into the revised reactor oversight process. You will notice that the following summary of plant performance is organized differently from our previous performance summaries. Instead of characterizing our assessment results by SALP functional area, we are organizing the results into the strategic performance areas embodied in the revised reactor oversight process. In addition, we have considered the historical performance indicator data that you submitted in January 2000 in conjunction with the inspection results in assessing your performance. The results of this PPR were used to establish the inspection plan in accordance with the new risk-informed inspection program (consisting of baseline and supplemental inspections). Although this letter incorporates some terms and concepts associated with the new oversight process, it does not reflect the much broader changes in inspection and assessment that will be evident after we have fully implemented our revised reactor oversight process.

During the last six months of the assessment period both Susquehanna units operated at or near full power with the exception of one unplanned shutdown of Unit 2. Although we noted some performance issues during this assessment period, Susquehanna continued to operate in a safe manner. In an effort to understand your response to these performance issues, additional inspection resources will be allocated in certain areas as noted in this letter.

In the reactor safety strategic performance area we noted some improvement at Susquehanna. Nevertheless, performance deficiencies continue to exist in three areas: equipment reliability, communication and coordination among work groups, and your corrective action program.

Equipment reliability was a problem early in the assessment period, with some improvement later in the period. Your equipment problems stem, in part, from untimely and narrowly focused corrective actions for previous problems, inconsistent use of industry operating experience, and weak maintenance practices.

The communication and coordination deficiencies among various work groups within your organization delayed resolution of some important equipment and plant system issues, such as emergency service water pump flow degradation and secondary containment isolation damper failures. On occasion, these work groups did not follow established procedures or processes. For example, we identified some instances in which maintenance personnel deferred preventive maintenance tasks without the required engineering evaluations.

In addition to corrective action program issues already discussed, related to untimely and narrowly focused corrective actions, we noted examples in which station personnel failed to identify degraded equipment and document the problems in your corrective action system. We also found cases in which station personnel did not fully comply with corrective action program procedures regarding operability determinations and corrective action due dates.

In the reactor safety strategic performance area we currently plan to perform baseline inspections and also to conduct an initiative inspection to review the implementation of the site maintenance program, with a focus on degraded equipment issues. Because we have recently completed an inspection of your corrective action program and understand your performance issues related to the program, we plan to review your activities related to problem identification and resolution as part of the baseline inspection program.

In the radiation safety strategic performance area, the Fourth Quarter 1999 performance indicator for occupational exposure control effectiveness was at a level that would require us to perform a supplemental inspection. The data for this performance indicator included several events that occurred about three years ago. Since the release of the Fourth Quarter 1999 performance indicators, the method to determine this performance indicator was changed to make this performance indicator more representative of current performance. Using the new method, the performance indicator for occupational exposure control effectiveness is at a level that does not require a supplemental NRC inspection. Notwithstanding, we have observed poor radiological work practices during our routine inspections. Based on these observations and the problems noted in your corrective action system, in addition to performing baseline inspections in the radiation safety strategic performance area, we currently plan to conduct an initiative inspection focused on your efforts to ensure proper radiological work practices.

We did not identify any significant performance issues in the safeguards strategic performance area. Therefore, we currently plan to perform only our normal baseline inspections in this area.

Enclosure 1 contains a historical listing of plant issues, referred to as the Plant Issues Matrix (PIM), that were used during this PPR process to arrive at our integrated view of your performance trends. The PIM for this assessment is grouped by the prior SALP functional areas of operations, maintenance, engineering and plant support, although the future PIM will be organized along the cornerstones of safety as described in the revised reactor oversight process. The attached PIM includes items summarized from inspection reports or other docketed correspondence between the NRC and PPL regarding Susquehanna. We did not document all aspects of licensee programs and performance that may be functioning appropriately. Rather, we only documented issues that we believe warrant management attention or represent noteworthy aspects of performance. In addition, the PPR may also have considered some pre-decisional and draft material that does not appear in the attached PIM, including observations from events and inspections that had occurred since our last inspection report was issued, but had not yet received full review and consideration. We will make this material publically available as part of the normal issuance of our inspection reports and other correspondence.

Enclosure 2 lists our planned inspections for the period April 2000 through March 2001 at Susquehanna to allow you to resolve scheduling conflicts and personnel availability in advance of our inspector arrival onsite. Since many of the inspections at Susquehanna and at other Region I facilities during this period involve a team of inspectors, our ability to reschedule inspections is limited. Therefore we request that you inform us as soon as possible of any scheduling conflicts. The inspection schedule for the latter half of the period is more tentative and may be adjusted in the future due to emerging performance issues at Susquehanna or other Region I facilities. Routine resident inspections are not listed due to their ongoing and continuous nature.

We will inform you of any changes to the inspection plan. If you have any questions, please contact me at 610-337-5233.

Sincerely,

/RA/

Curtis J. Cowgill III, Chief
Reactor Projects Branch 4
Division of Reactor Projects

Docket Nos. 05000387, 05000388
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Enclosures: 1. Plant Issues Matrix
2. Inspection Plan

Mr. Robert Byram

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