

CATEGORY 2

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ACCESSION NBR: 9809280338 DOC. DATE: 98/09/18 NOTARIZED: NO DOCKET #
 FACIL: 50-387 Susquehanna Steam Electric Station, Unit 1, Pennsylv 05000387
 50-388 Susquehanna Steam Electric Station, Unit 2, Pennsylv 05000388
 AUTH. NAME AUTHOR AFFILIATION
 HEHL, C.W. Region 1 (Post 820201)
 RECIP. NAME RECIPIENT AFFILIATION
 BYRAM, R.G. Pennsylvania Power & Light Co.

SUBJECT: Discusses insp repts 50-387/98-01 & 50-388/98-01 on
 980120-0316 & forwards NOV. Insp rept identified that three
 apparent violations related to SLCS accumulators were being
 considered for escalated enforcement action.

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September 18, 1998

EA 98-140

Mr. Robert G. Byram
Senior Vice President-Nuclear
Pennsylvania Power & Light Company
2 North Ninth Street
Allentown, Pennsylvania 18101

SUBJECT: NOTICE OF VIOLATION (NRC INTEGRATED INSPECTION REPORT
50-387/98-01, 50-388/98-01)

Dear Mr Byram:

This refers to the inspection completed on March 16, 1998 at your Susquehanna Steam Electric Station (SSES) 1 & 2. The inspection report was issued on April 9, 1998. The inspection reviewed, in part, SSES activities related to the operation of the accumulators in the standby liquid control system (SLCS). Based on the results of this inspection, the inspection report identified that three apparent violations related to SLCS accumulators were being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600.

A predecisional enforcement conference (conference) was held with you and members of your staff in the Region I office on May 4, 1998 to discuss the apparent violations. A copy of your presentation is enclosed. At the predecisional enforcement conference, you indicated that your staff had recently completed an evaluation of the events and concluded that the SLCS accumulators were not required to meet the technical specification or ATWS rule requirement, nor were they needed for SLCS to perform its design basis function. At the request of the NRC staff, you provided (1) the details of this evaluation to the NRC in a letter dated June 10, 1998, as well as (2) copies of the supporting calculations on August 5, 1998.

Based on the information developed during the inspection, during the conference, and subsequent to the conference, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation involved the failure to promptly identify and correct a condition adverse to quality involving the depressurization of the SLCS accumulators. Specifically, prior to September 1997, you did not initiate Condition Reports, nor perform an evaluation to justify that the ability of the SLCS to perform its safety function was not adversely impacted when the accumulators were found below the pressure required by procedure. Additionally, following maintenance on both Unit 1 SLCS accumulators in September 1997, you did not recognize that the caps on the accumulator gas valves were apparently improperly tightened causing the valves to leak. Although your staff recognized in September 1997 that depressurization of the accumulators could adversely impact the

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operability of the SLCS, the degraded condition of the Unit 1 accumulators was not identified until November 25, 1997.

The SLCS accumulators provide a measure of protection against the potentially detrimental pressure pulsations produced by the SLCS pumps. The pressure pulsations, if not adequately protected against, could cause the system relief valve to lift which would divert a portion of SLCS pump flow into the SLCS storage tank rather than into the reactor vessel. As you acknowledged in your June 10, 1998 letter, there were shortcomings in your original documentation as to whether the accumulators were needed to ensure operability of the SLCS. Given the insufficient basis, prior to November 1997, for assuming that the accumulators were not required for SLCS operability, your failure to properly evaluate and correct the degraded condition constitutes a violation of Criterion XVI of Appendix B to 10 CFR 50. Although extensive evaluation was required to determine the impact of the degraded condition of the accumulators on the operability of the SLCS, the analysis provided by PP&L following the conference was sufficient to allow the NRC staff to conclude that, for the "as found" SLCS accumulator pressures in November 1997, there was reasonable assurance that SLCS would deliver the required flow into the reactor vessel for both the technical specification and ATWS rule conditions. Therefore, this violation has been categorized at Severity Level IV in accordance with the Enforcement Policy. Nonetheless, the NRC is concerned that before this issue related to the operation of the accumulators was raised, you had no documented technical basis for demonstrating that the accumulator function of the safety-related SLCS was not required for system operability.

- Your analysis relied significantly on data collected during testing of the SLCS at Oyster Creek. Although the NRC staff concluded that there was reasonable assurance that the degraded condition of the accumulators identified in November 1997 would not have prevented the SLCS from performing its intended safety function as required by technical specifications and the ATWS rule, the staff did not consider your evaluation and calculations sufficiently rigorous to apply the limited Oyster Creek test data to the specific installation of SLCS at Susquehanna. Absent a more rigorous review by PP&L and the NRC, the NRC staff considers that pressurized accumulators are required in the current SLCS to meet technical specifications, ATWS rule requirements and the SLCS design basis function.

The NRC staff recognizes that you improved the documentation of the basis for the SLCS requirements and that you intend to continue to look for design basis documentation weaknesses as part of your licensing basis and design basis documentation projects. Additionally, you have modified the method of pressurizing and monitoring the SLCS accumulators and intend to continue to maintain the accumulators in a highly pressurized condition. The NRC staff also understands that the accumulators, the accumulator bladders, and gas (schradler) valves are part of your "Q-List" and will continue to be maintained on the "Q-List."



Robert G. Byram

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The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence are already adequately addressed on the docket in your presentation at the conference and in your June 10, 1998 letter. Therefore, you are not required to respond to this letter unless the description therein does not accurately reflect your corrective actions or our understanding as described above. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

Sincerely,

Original Signed by:

Charles W. Hehl, Director
Division of Reactor Projects

Docket Nos 50-387
50-388
License Nos NPF-14
NPF-22

Enclosures:

1. Notice of Violation
2. PP&L Presentation at Predecisional Enforcement Conference

cc w/encls:

R. F. Saunders, Vice President - Site Operations
G. T. Jones, Vice President - Engineering and Support
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