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U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Mail Stop OP1-17
Washington, DC 20555

**SUSQUEHANNA STEAM ELECTRIC STATION
REPLY TO A NOTICE OF VIOLATION
(EA-01-187 FROM INSPECTION REPORT
NOS. 50-387-01-06 AND 50-388-01-06)
PLA-5383**

Docket Nos. 50-387
and 50-388

Reference: Letter from H. J. Miller (NRC Region 1) to R. G. Byram (PPL), "Final Significance Determination for a White Finding and Notice of Violation at Susquehanna Steam Electric Station (NRC Inspection Report 50-387/01-06, 50-388/01-06)", dated September 13, 2001.

The purpose of this letter is to provide the PPL Susquehanna, LLC (PPL) response to the NRC Notice of Violation (EA-01-187) referenced above. Two attachments are provided: 1) the formal PPL response to the violation, and 2) the additional information requested by the NRC regarding issues that have recurred since the time of the inspection.

PPL does not contest the violation nor its significance level as characterized by the NRC. Since the time of the NRC inspection, we initiated a broad review of our Emergency Planning function in order to ensure a thorough understanding in support of effective corrective actions. Our assessment identified the need to significantly improve the integration of Emergency Planning into the normal work activities at Susquehanna. We also learned that we had allowed the clarity of plan documentation to erode with time.

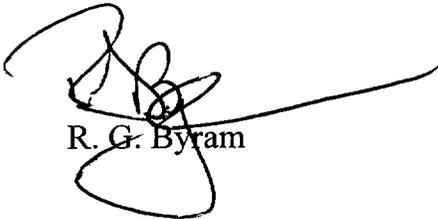
Our efforts have resulted in the development of an integrated management plan to raise our standards in Emergency Planning consistent with other key initiatives at Susquehanna. We will forward this plan under separate cover to you for your information and review no later than October 31, 2001.

IE01

As stated in the attached violation response, PPL is currently in full compliance based on the corrective actions that have been completed. During the course of our reviews, PPL has acted to resolve items we have identified commensurate with their priority, and will continue to do so. We want to assure the NRC that our current organization, plan, procedures and facilities continue to support an effective response capability.

If you have any questions concerning the response, please contact Mr. T. L. Harpster, Manager - Nuclear Licensing at (610) 774-7504.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. G. Byram', with a long horizontal line extending to the right.

Attachments (2)

Copy: NRC Region I
Mr. S. L. Hansell, NRC Sr. Resident Inspector
Mr. R. G. Schaaf, NRC Project Manager

Attachment 1 to PLA-5383

Reply to a Notice of Violation

REPLY TO A NOTICE OF VIOLATION

Violation EA-01-187

10CFR50.54(q) specifies, in part, that a licensee authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b).

10 CFR 50.47(b)(2) states, in part, that on-shift facility licensee responsibilities for emergency response are unambiguously defined, and adequate staffing to provide initial facility accident response in key functional areas is maintained at all times.

The Susquehanna Emergency Plan (E-Plan), dated February 2000, Section 6.1 specifies that the minimum shift response during off-hours to respond to an emergency event includes, in part, two plant control operators (PCOs – reactor operators) per unit, for a total of four PCOs and one Assistant Unit Supervisor (AUS – senior reactor operator or reactor operator).

Contrary to the above, the licensee did not ensure that procedures were adequate and staffing levels were maintained to meet E-Plan requirements. Specific deficiencies included:

- (1) Nuclear Department Administrative Procedure (NDAP), NDAP-QA-0300, "Conduct of Operations," Revision 11, permitted the use of three PCOs and no AUS when approved by Operations Management.
- (2) On nine occasions in 2000 (May 21, June 4, June 14, June 26, June 28, June 30, July 25, December 15, and December 16), and four occasions in 2001 (January 21, February 11, March 2, and April 4), the licensee did not maintain at least four PCOs on-shift for all or a significant part of those 12 hour shifts.
- (3) On one occasion in 1999 (October 1), three occasions in 2000 (May 25, June 10, and June 11), and one occasion in 2001 (January 7), the license did not maintain the AUS position for all or a significant part of those 12 hour shifts.

This violation is associated with a WHITE Significance Determination Process finding.

Reason for the Violation

During the resolution of this violation, PPL assembled a root cause investigation team. This team determined that the underlying cause for the violation was that PPL did not have an adequate process in place to control Emergency Plan staffing requirements for the on-shift operations staff, i.e., the regulatory requirements of the Emergency Plan were not adequately incorporated into the station's Administrative Procedures. Also, the lack of integration of Emergency Plan personnel into day-to-day station operations allowed the impacts of procedural changes on Emergency Plan commitments to go undetected. A specific example of this is that Emergency Planning personnel are not routinely requested to review other work groups' procedure changes that might affect the Emergency Plan commitments.

Corrective Steps That Have Been Taken and the Results Achieved

The following immediate corrective actions were taken in response to the identified issues:

1. Nuclear Department Administrative Procedure (NDAP), NDAP-QA-0300, "Conduct of Operations," has been revised (June 9, 2001 and July 26, 2001) to include the minimum staffing requirements for both the Technical Specifications/Technical Requirements Manual and the Emergency Plan. NDAP-QA-0300 also provides alternative personnel for filling both the Emergency Plan and Technical Specifications/Technical Requirements Manual positions. The following are the clarifications provided for the two positions (PCO and AUS) cited in the violation:
 - The PCO position covers both operating the plant and serving as Control Room Communicator. NDAP-QA-0300 now requires a minimum of four (4) PCOs to meet both functions.
 - The AUS position covers both Fire Brigade Leader and Operational Support Center (OSC) Coordinator. NDAP-QA-0300 allows a Unit Supervisor qualified as a Fire Brigade Leader/OSC Coordinator to fill this position as an alternate.

Since April 4, 2001, there have been no identified instances where the on-shift staffing for the PCO and AUS positions went below the minimum required to meet the Emergency Plan minimum staffing requirements.

2. Minimum staffing requirements for other on-shift workgroups (i.e., Chemistry, Health Physics, and Security) were reviewed to ensure proper controls. The administrative procedures for these on-shift workgroups were determined to be acceptable.

There were no identified instances in the past where the on-shift staffing for any of these groups went below the minimum required to meet the Emergency Plan minimum staffing requirements.

3. Control Room Shift Supervisors implemented additional controls to require verification once per shift that Emergency Plan position requirements are met.
4. A Root Cause Analysis team performed further investigation and made recommendations for corrective actions to prevent recurrence.

Corrective Steps That Will Be Taken to Avoid Further Violations

Based on the work performed by the Root Cause Analysis team, the following corrective steps will be taken in order to avoid further violations:

- A routine tracking mechanism will be implemented by affected work groups (Operations, Health Physics, Chemistry, and Security) to document that the minimum on-shift staffing level is being maintained. As noted above, this has been completed in Operations.
- A referencing mechanism between all impacted station implementing procedures and the Emergency Plan will be instituted.
- Nuclear Assurance will evaluate the lessons learned from this experience for integration into future assessments.

Additionally, based on management review of this issue, an integrated plan to resolve identified emergency plan issues consistent with other key initiatives at Susquehanna will be developed and implemented.

Date When Full Compliance Will be Achieved

Based on the procedural corrections identified above, PPL is currently in full compliance.

Attachment 2 to PLA-5383

Additional Information Regarding Recurring Issues

ADDITIONAL INFORMATION REGARDING RECURRING ISSUES

Additional Information Request

The September 13, 2001 NRC letter transmitting the Notice of Violation requested that PPL respond to the following issue:

“We recognize that one of your immediate corrective actions consisted of revising the procedure in question. However, our ongoing inspections indicate that some Emergency Plan staffing problems have recurred on a few occasions since our May/June inspection. Therefore, your response should address not only the specific changes made to that procedure, but also any other immediate and long-term corrective actions. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with requirements.”

PPL Response

PPL has reviewed compliance with minimum on-shift staffing requirements since the May/June NRC inspection. The following is provided in response to NRC's request:

On June 9, 2001, NDAP-QA-0300 was revised to require four (4) Nuclear Plant Operators (NPOs) on-shift in order to meet the minimum staffing requirements for NPOs as defined in the Emergency Plan. The on-shift staffing administrative limit remained at five (5) NPOs.

It was also realized in June that the dual responsibility assignment for the AUS position (Fire Brigade Leader and OSC Coordinator) created additional staffing issues. In response to this concern, six NPOs were trained and qualified as OSC Coordinators so that each shift had at least one NPO qualified to perform this function. Subsequently, all eligible Level 5 NPOs have been trained and qualified as OSC Coordinators. Additionally, in a revision to NDAP-QA-0300 dated July 26, 2001, the NPO on-shift staffing requirement was raised by one (1) to fill the role of OSC Coordinator should the simultaneous activation of the OSC and Fire Brigade occur. The on-shift administrative staffing requirement of five (5) NPOs did not change. These changes did not result in any increase in the number of on-shift personnel.

Since raising the required NPO staffing level in the July 26, 2001 revision to NDAP-QA-0300, a misinterpretation of the requirement caused the number of NPOs on-shift to be less than the number required on one occasion (July 30). This was documented in our corrective action program (ref. CR 354630). The analysis of the cause of this incident suggests that although control room supervision was aware of the procedure change, the layout of the information defining the new minimum staffing requirements was subject to misinterpretation. Specifically, it was not clear if one of the NPOs required to support safe shutdown could also fulfill the role of OSC Coordinator. While this is not permissible, control room supervision incorrectly interpreted it as such.

The other occasions (documented in CR 354630) where the number of NPOs on-shift was less than five happened prior to the implementation of the revision of NDAP-QA-0300 that required five (5) NPOs.

In response to this issue, NDAP-QA-0300 was revised on August 3, 2001 to summarize the total required on-shift personnel for both Technical Specifications/Technical Requirements Manual and the Emergency Plan requirements as well as total personnel required to fill each position.

Since August 1, 2001, there have been no identified instances where the on-shift staffing for NPOs went below the minimum required by NDAP-QA-0300.