

October 8, 2002

Mr. Bryce L. Shriver  
Senior Vice President and  
Chief Nuclear Officer  
Susquehanna Steam Electric Station  
PPL Susquehanna, LLC  
769 Salem Blvd., NUCSB3  
Berwick, PA 18603-0035

**SUBJECT: NOTICE OF ENFORCEMENT DISCRETION (NOED) FOR PPL  
SUSQUEHANNA, LLC REGARDING SUSQUEHANNA STEAM ELECTRIC  
STATION UNIT 1 [NOED No. 2002-01-03]**

By letter dated October 5, 2002, PPL requested that the NRC exercise discretion to not enforce compliance with the actions required by Technical Specification (TS) 3.8.1, "A.C. Sources - Operating," for Susquehanna Unit 1. PPL's letter documented information previously discussed with the NRC in a telephone conference at 11:00 a.m., on October 5, 2002. The principal NRC staff members who participated in that telephone conference included:

NRC Region I Staff

- A. Randolph Blough, Director, Division of Reactor Projects (DRP)
- Richard Crlenjak, Deputy Director, Division of Reactor Safety (DRS)
- Mohamed Shanbaky, Branch Chief, DRP Branch 4
- James Linville, Branch Chief, DRS Electrical Branch
- Eugene Cobey, Senior Reactor Analyst
- Samuel Hansell, Senior Resident Inspector
- Donald Florek, Senior Project Engineer

NRC Headquarters Staff

- Stuart Richards, Director - PD-I, Division of Licensing Project Management (DLPM)
- Eric Thomas, Susquehanna Project Manager, DLPM
- Peter Wilson, Acting Branch Chief, Probabilistic Safety Assessment Branch

PPL's letter indicated that on October 6, 2002, at 2:30 a.m., Susquehanna Unit 1 would not be in compliance with TS 3.8.1 due to the unavailability of one of the two required offsite power sources. This unavailability of one offsite power source would require Unit 1 to be in a hot shutdown condition by 2:30 p.m. on October 6, 2002. PPL requested that a Notice of Enforcement Discretion (NOED) be issued pursuant to the NRC's policy regarding exercise of discretion for an operating facility, set out in Section VII.C, of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, and be effective for 4 days, ending at 2:30 a.m., on October 10, 2002. This letter documents our telephone conversation at 2:00 p.m., on October 5, 2002, between myself and Mr. Richard Anderson, Vice President-Nuclear Operations during which NRC orally issued this NOED subject to conditions that were subsequently included in PPL's letter.

PPL requested this NOED following the ST No. 20 startup transformer failure that occurred at 2:30 a.m. on October 3, 2002, that rendered one offsite power source unavailable. The failure required replacement of the transformer. The time required to replace the transformer will exceed the limit contained in LCO 3.8.1 ACTION A.3 of 72 hours. LCO 3.8.1 ACTION A.3 requires that if the offsite source cannot be restored within 72 hours, Unit-1 must be in hot shutdown within 12 hours. PPL provided information that the time to replace and complete testing on the new transformer would require 4 days beyond the 72 hours permitted by LCO 3.8.1 ACTION A.3. PPL's preliminary evaluation of the ST No. 20 failure indicated that a fault internal to the transformer was the most probable cause of the failure. PPL's Event Review Team preliminary assessment did not identify any inherent failure in design or maintenance practices that would be indicative of common mode failures.

PPL requested this NOED after consideration of the safety significance and potential consequences of such an action. PPL concluded that remaining at power for an additional four-day period beyond that permitted by TS 3.8.1, while completing the replacement of the ST No. 20 startup transformer, would not result in an undue risk to the health and safety of the public. That conclusion was based on risk insights that indicated no net increase in radiological risk as a result of having one offsite power source out of service for up to four additional days, as well PPL's confidence that the ongoing repairs to the startup transformer would be effective and would be completed within this discretionary period. PPL concluded that their NOED request was safety and risk neutral based, in part, on the current status of the remaining offsite and onsite electrical distribution and risk significant systems in conjunction with a number of compensatory risk management measures implemented to maintain a risk neutral status while the one offsite power source was out-of-service.

As compensatory measures during the period of the NOED, PPL committed to: (1) increased engineering inspections of ST No. 10 startup transformer; (2) enhanced operator rounds for ST No. 10; (3) prohibit high-risk activities within the confines of the plant that may result in loss of ST No. 10; (4) prohibit high-risk grid activities that may result in loss of ST No. 10; (5) deny Transmission and Distribution Operations work requests that would jeopardize the reliability of ST No. 10; (6) assess any emerging insights from the ongoing investigation into the ST No. 20 failure for impact on ST No. 10 operability; (7) maintain operable and prohibit elective maintenance activities on risk significant systems and components specified in the NOED request; and (8) shift operating crew reviews of severe weather, loss of offsite power, and station blackout procedures. In response to the conditions the NRC stipulated to PPL as part of the oral issuance of the NOED, PPL also committed in their letter that if any of the specified risk significant equipment or systems become unavailable or inoperable, PPL will immediately begin and promptly complete a risk evaluation of the impact to determine if the basis for the NOED remains valid, and within 1 hour, contact the NRC Operations Center and the NRC Resident Inspector. Additionally, if PPL identified degradation of ST No.10, PPL will immediately begin to evaluate the impact and promptly complete an evaluation to determine operability of ST No. 10. If PPL determined that ST No. 10 is inoperable or potentially unreliable, PPL will implement Technical Specification requirements and within 1 hour, PPL will contact the NRC Operations Center and the NRC Resident Inspector.

The NRC's basis for this discretion considered: (1) the availability and recent satisfactory testing of ST No. 10 startup transformer, main transformer, and emergency safety system transformers; (2) the operable status of the four emergency diesel generators onsite and the availability of the fifth emergency diesel generator to be substituted for any of the four; (3) the operable status of the remaining offsite electrical source; (4) the weather, generation supply, and solar magnetic disturbance forecasts and their potential impact on the reliability of the remaining offsite power source for the four-day period; (5) the improvements made to Susquehanna's Probabilistic Risk Assessment model; (6) the status of the risk important systems that could be required to respond to a plant transient or loss of offsite power; (7) the comprehensive list of compensatory actions undertaken to ensure that the four-day extension did not result in a net increase in radiological risk; (8) indications that replacement of ST No. 20 startup transformer would be successfully implemented during the discretionary period, and (9) the fact that the most likely cause of the failure of ST No. 20 had been identified and that no failure mechanisms common to ST No. 10 startup transformer were identified.

Based on the above considerations, the staff concluded that Criterion B.2.1.1.a and the applicable criteria in Section C.4 to NRC Manual Chapter 9900, "Technical Guidance, Operation - Notices of Enforcement Discretion" were met. Criterion B.2.1.1.a states that for an operating plant, the NOED is intended to avoid unnecessary transients as a result of compliance with the license condition and, thus, minimize potential safety consequences and operational risks.

On the basis of the staff's evaluation of your request, we concluded that issuance of this NOED is consistent with the Enforcement Policy and staff guidance, and has no adverse impact on public health and safety. Therefore, it is our intention to exercise discretion not to enforce compliance with TS 3.8.1 ACTION A.3 for the four-day period starting at 2:30 a.m., on October 6, 2002, and ending at 2:30 a.m., on October 10, 2002.

As stated in the Enforcement Policy, action will be taken, to the extent that violations were involved, for the root causes that led to the noncompliance for which this NOED was requested.

Sincerely,

/RA/

A. Randolph Blough, Director  
Division of Reactor Projects

Enclosure: NOED Request from Susquehanna Steam Electric Station dated October 5, 2002

Docket No. 50-387  
License No. NPF-14  
NOED No. 2002-01-03

Mr. Bryce L. Shriver

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cc w/encl: J. H. Miller, President - PPL Generation, LLC  
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