

December 18, 2001

Mr. Robert G. Byram  
Senior Vice President  
and Chief Nuclear Officer  
PPL Susquehanna, LLC  
2 North Ninth Street  
Allentown, PA 18101

SUBJECT: SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2 - REQUEST  
FOR ADDITIONAL INFORMATION RE: ELIMINATION OF AUTOMATIC  
TRANSFER OF HIGH-PRESSURE COOLANT INJECTION PUMP SUCTION  
SOURCE (TAC NOS. MB2190 AND MB2191)

Dear Mr. Byram:

By letter dated June 8, 2001, PPL Susquehanna, LLC (PPL), proposed an amendment to modify the Susquehanna Steam Electric Station (SSES), Units 1 and 2, technical specifications to eliminate the automatic transfer of the high-pressure coolant injection pump suction source from the condensate storage tank to the suppression pool (SP) on high SP level. The Nuclear Regulatory Commission staff has reviewed PPL's request and has determined that additional information is required in order to complete our review. The additional information required is described in the enclosure.

The enclosed information request has been discussed with Mr. Duane Filchner of your staff and a mutually agreed date for your response of January 15, 2002, has been established.

If you have any questions regarding this correspondence, please contact me at (301) 415-1312.

Sincerely,

/RA/

Daniel S. Collins, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-387 and 50-388

Enclosure: Request for Additional  
Information

cc w/encl: See next page

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Units 1 & 2

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REQUEST FOR ADDITIONAL INFORMATION  
RELATED TO REQUEST FOR ELIMINATION OF AUTOMATIC TRANSFER OF  
HIGH-PRESSURE COOLANT INJECTION PUMP SUCTION SOURCE  
PPL SUSQUEHANNA, LLC  
ALLEGHENY ELECTRIC COOPERATIVE, INC.  
SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2  
DOCKET NOS. 50-387 AND 50-388

For both units, the licensee proposes to delete Function 3.e., "HPCI System Suppression Pool Water Level - High," from Technical Specifications Table 3.3.5.1-1. This change would eliminate the automatic transfer of the high pressure coolant injection (HPCI) pump suction source from the condensate storage tank (CST) to the suppression pool (SP) on high SP level.

1. The licensee stated that this change would address a potential vulnerability identified in the individual plant examination that is associated with a specific scenario involving an anticipated transient without scram. The licensee also indicates that this change would reduce operator burden during a station blackout event. However, if this automatic feature were removed, new operator actions may be necessary during a small-break loss-of-coolant accident (LOCA) to manually transfer the suction from the CST to the SP on high SP level. Because there are potentially negative as well as positive risk impacts associated with the proposed change, the Nuclear Regulatory Commission (NRC) staff requires the following information to support its review:
  - a. Provide the plant's current core damage frequency (CDF) and large early release frequency (LERF) and the plant's revised (i.e., assuming the proposed change is implemented) CDF and LERF. In addition, the licensee should provide a breakdown of the current and revised CDF and LERF contribution by initiating event and needs to provide a discussion of the impacts of the proposed change on the individual event sequences/initiating events.
  - b. Provide a description of how the licensee assures that the current probabilistic risk analysis (PRA) models reflect the as-built, as-operated plant and if the current PRA has been through an industry peer review certification process. If there was a peer review, please provide the overall findings of the review (by element) and discuss any elements rated low (e.g., less than a 3 on a scale of 1 to 4) or any findings that potentially affect the sequences impacted by the licensee's proposed change. The licensee will need to address any identified weaknesses in the PRA models that might affect the results associated with this license amendment.
  - c. Provide a description of the revised PRA modeling and/or assumptions used to reflect the proposed change. This description should address the specific thermal hydraulic conditions that are impacted and were analyzed and any changes in success criteria or sequence/timing of events.

ENCLOSURE

- d. Provide a description of any new operator actions that are required as a result of the proposed change (e.g., manual swap-over from the CST to the SP for small-break LOCA events), including the associated human error probabilities (HEPs) and the human reliability analysis bases for these HEPs (e.g., cause-based versus time-based, time available, proceduralized, difficulty of diagnosis and implementation, etc.). Based on NRC Information Notice 97-78, "Crediting of Operator Actions in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times," the licensee should provide for each of these operator actions: (1) the specific operator actions required; (2) the potentially harsh or inhospitable environmental conditions expected; (3) a general discussion of the ingress/egress paths taken by the operators to accomplish functions; (4) the procedural guidance for required actions; (5) the specific operator training necessary to carry out actions, including any operator qualifications required to carry out actions; (6) any additional support personnel and/or equipment required by the operator to carry out actions; (7) a description of information required by the control room staff to determine whether such operator action is required, including qualified instrumentation used to diagnose the situation and to verify that the required action has successfully been taken; (8) the ability to recover from credible errors in performance of manual actions, and the expected time required to make such a recovery; and (9) consideration of the risk significance of the proposed operator actions.
2. The SABRE code is relied upon to assess the impact of the proposed change on the intermediate- and small-break LOCA and inadvertent main steam isolation valve closure sequences. This code has not previously been reviewed or approved by the staff. In order for the staff to complete its review of the proposed change, please submit the code and associated documentation. The submittal should include the source code, available user documentation, and input data used to evaluate the sequences noted above.

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Sincerely,

**/RA/**

Daniel S. Collins, Project Manager, Section 1  
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Division of Licensing Project Management  
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ACCESSION NO. ML013120832

\* See previous concurrence.

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