

November 9, 2006

MEMORANDUM TO: Richard Laufer, Chief
Section I
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Timothy Kobetz, Chief */RA/*
Technical Specifications Section
Reactor Operations Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

SUBJECT: REVIEW OF SUSQUEHANNA STEAM ELECTRIC STATION UNITS 1
AND 2 AMENDMENT REQUEST TO REVISE TECHNICAL
SPECIFICATIONS 3.8.1 (TAC NOS. MD2142 AND MD2143)

By application dated May 31, 2006, PPL Susquehanna, LLC (the licensee) submitted a request for changes to the Susquehanna Steam Electric Station, Unit Nos. 1 and 2, Technical Specifications. The proposed changes correct administrative errors in the Technical Specifications. The amendments add a logical "AND" connector in Condition B of LCO 3.8.1 (Unit 1 only) and correct the routing of I-80 on Figure 4.1-2 in Technical Specifications 4.0.

The Technical Specifications Branch (ITSB) has reviewed the Susquehanna TS submittal and supporting documentation. Based on our review, the staff finds that the proposed revisions to the Susquehanna Technical Specifications are acceptable. Our safety evaluation is attached. This completes our efforts on TAC Numbers MD2142 and MD2143.

Docket Nos. 50-387 and 50-388

Enclosure:
As stated

Contacts: R. Clark, NRR/DIRS
301-415-2297

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUSQUEHANNA STEAM ELECTRIC STATION UNIT 1 AND UNIT 2

DOCKET NO. 50-272 AND 50-311

1.0 INTRODUCTION

By application dated May 31, 2006, PPL Susquehanna, LLC (the licensee) submitted a request for changes to the Susquehanna Steam Electric Station, Unit Nos. 1 and 2, Technical Specifications. The proposed changes correct administrative errors in the Technical Specifications. The amendments add a logical "AND" connector in Condition B of LCO 3.8.1 (Unit 1 only) and correct the routing of I-80 on Figure 4.1-2 in Technical Specification 4.0.

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance which the NRC staff considered in its review of the application are as follows:

1. General Design Criterion (GDC) 17, "Electrical power systems," in Appendix A to Part 50, "General Design Criteria for Nuclear Power Plants," states, in part, that nuclear power plants must have onsite and offsite electric power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system must be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.
2. GDC-18, "Inspection and testing of electric power systems," requires that electric power systems that are important to safety be designed to permit appropriate periodic inspection and testing.
3. Section 50.36, "Technical specifications," provides the regulatory requirements for the content required in a licensee's TSs. Section 50.36 states, in part, that the TSs will include SRs to assure that the quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation (LCO) will be met.

Specifically, 10 CFR 50.36(c)(2)(ii) sets forth four criteria to be used in determining whether an LCO is required to be included in the TSs. These criteria are as follows:

- (a) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

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- (b) A process variable, design feature, or operating restriction that is an initial condition of a design-basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- (c) A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design-basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- (d) A structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Existing LCOs and related surveillances included as TS requirements which satisfy any of the criteria stated above must be retained in the TSs, while those requirements that do not fall within or satisfy these criteria may be relocated to licensee-controlled documents.

3.0 TECHNICAL EVALUATION

3.1 Background

In 1998 during the conversion of the Technical Specifications to the Improved Technical Specifications (ITS), a required “AND” logical connector was inadvertently left out of Condition B of LCO 3.8.1 in Unit 1 only. The Unit 2 Technical Specifications correctly reflect the “AND” logical operator and do not need to be revised. During the ITS conversion, Figure 4.1-2 was also drawn incorrectly for both units.

3.2 PPL’s Proposed Changes

Changes to Technical Specifications LCO 3.8.1

The proposed TS change adds a logical “AND” connector to Condition B, in LCO 3.8.1, between REQUIRED ACTIONS B.3.2 and B.4. The addition of the logical connector is in accordance with ITS Section 1.2.

Changes to Figure 4.1-2

The proposed TS change deletes the connection between Interstate Route I-80 and Interstate Route I-81.

3.3 NRC Staff Evaluation

Changes to Technical Specifications LCO 3.8.1

The proposed changes to LCO 3.8.1 correct administrative errors in the ITS. The logical “AND” connector is needed to ensure that all REQUIRED ACTIONS are completed consistent with

NUREG-1433. With one required DG inoperable, the operator must:

1. Perform SR 3.8.1.1, and
2. Declare required feature(s) supported by the inoperable DG, inoperable when the redundant required feature(s) are inoperable, and
3. Determine operable DGs are not inoperable due to common cause failures or perform SR 3.8.1.7 for operable DGs, and
4. Restore required DG to OPERABLE status in 72 hours.

The NRC staff reviewed the administrative changes proposed by the licensee and find them acceptable because they are compatible with the Standard Technical Specifications, do not result in any change in operating requirements, and are consistent with the Commission's regulations.

Changes to Figure 4.1-2

Figure 4.1-2 is a map of the Low Population Zone. The map incorrectly shows I-80 intersecting with I-81 and becoming part of I-81. Figure 4.1-2 is redrawn to show correct routing of I-80.

The proposed changes to Figure 4.1-2 is acceptable because the changes correctly indicate the routes by which state and local police departments can direct traffic in the event of an emergency. Inaccurate maps could cause unnecessary delays, confusion and needless radiation exposure to the local population if the surrounding areas is to be evacuated.

Based on the review of the above changes, the NRC staff concludes that the proposed changes to SR 3.8.1 do not affect the safe and reliable operation of the plant, maintains compliance with requirements governing the design and operation of the Electrical Power System and, therefore, are acceptable. The proposed changes to Figure 4.1-2 are acceptable because they will ensure proper implementation of the Emergency Preparedness Plan if necessary.

4.0 CONCLUSION

The staff has reviewed the licensee's submittals and supporting documentation. Based on the above evaluation the staff has concluded that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Contributor: R. Clark