

August 9, 1994

Mr. George A. Hunger, Jr.  
Director-Licensing, MC 52A-5  
PECO Energy Company  
Nuclear Group Headquarters  
Correspondence Control Desk  
P.O. Box No. 195  
Wayne, Pennsylvania 19087-0195

Dear Mr. Hunger:

SUBJECT: CHANGES TO TECHNICAL SPECIFICATION BASES 3/4.5.1, LIMERICK  
GENERATING STATION, UNITS 1 AND 2 (TAC NOS. M89918 AND M89919)

By letter dated July 13, 1994, PECO Energy Company submitted a proposed change to the Limerick Generating Station (LGS), Units 1 and 2, Technical Specifications (TS) Bases, Section 3/4.5.1, "Emergency Core Cooling System - Operating," to reflect the safety analysis assumptions for the Automatic Depressurization System (ADS).

You stated that PECO had previously submitted the General Electric (GE) Topical Report NEDC-32170P, Revision 1, "Limerick Generating Station Units 1 and 2 SAFER/GESTR-LOCA Loss-of-Coolant Accident Analysis," dated June 1993, and that the staff had found the analysis to be acceptable, as stated in the NRC letter to PECO, dated February 10, 1994. The Loss-of-Coolant Accident (LOCA) safety analysis performed by GE assumes five operable ADS valves, while the existing TS Bases state that the safety analysis only takes credit for four operable ADS valves. Further, LGS Units 1 and 2 are currently operating with five ADS valves.

The staff has reviewed the proposed change to TS Bases, Section 3/4.5.1, which states the accurate ADS safety analysis assumption, and finds the change to be acceptable. Enclosed is a copy of the revised Bases, page B 3/4 5-2 for Unit 1 and page B 3/4 5-2 for Unit 2.

Sincerely,

/s/

Frank Rinaldi, Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

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PDR ADOCK 05000352  
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Enclosure:  
Revised TS pages

cc w/enclosure:  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 9, 1994

Docket Nos. 50-352  
and 50-353

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A handwritten signature in cursive script, appearing to read "Frank Rinaldi".

Frank Rinaldi, Project Manager  
Project Directorate I-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
Revised TS pages

cc w/enclosure:  
See next page

Mr. George A. Hunger, Jr.  
PECO Energy Company

Limerick Generating Station,  
Units 1 & 2

cc:

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Sanatoga, Pennsylvania 19464

## EMERGENCY CORE COOLING SYSTEM

### BASES

#### ECCS - OPERATING and SHUTDOWN (Continued)

With the HPCI system inoperable, adequate core cooling is assured by the OPERABILITY of the redundant and diversified automatic depressurization system and both the CS and LPCI systems. In addition, the reactor core isolation cooling (RCIC) system, a system for which no credit is taken in the safety analysis, will automatically provide makeup at reactor operating pressures on a reactor low water level condition. The HPCI out-of-service period of 14 days is based on the demonstrated OPERABILITY of redundant and diversified low pressure core cooling systems and the RCIC system.

The surveillance requirements provide adequate assurance that the HPCI system will be OPERABLE when required. Although all active components are testable and full flow can be demonstrated by recirculation through a test loop during reactor operation, a complete functional test with reactor vessel injection requires reactor shutdown. The pump discharge piping is maintained full to prevent water hammer damage and to provide cooling at the earliest moment.

Upon failure of the HPCI system to function properly after a small break loss-of-coolant accident, the automatic depressurization system (ADS) automatically causes selected safety/relief valves to open, depressurizing the reactor so that flow from the low pressure core cooling systems can enter the core in time to limit fuel cladding temperature to less than 2200°F. ADS is conservatively required to be OPERABLE whenever reactor vessel pressure exceeds 100 psig. This pressure is substantially below that for which the low pressure core cooling systems can provide adequate core cooling for events requiring ADS.

ADS automatically controls five selected safety-relief valves. The safety analysis assumes all five are operable. The allowed out-of-service time for one valve for up to fourteen days is determined in a similar manner to other ECCS sub-system out-of-service time allowances.

#### 3/4.5.3 SUPPRESSION CHAMBER

The suppression chamber is required to be OPERABLE as part of the ECCS to ensure that a sufficient supply of water is available to the HPCI, CS and LPCI systems in the event of a LOCA. This limit on suppression chamber minimum water volume ensures that sufficient water is available to permit recirculation cooling flow to the core. The OPERABILITY of the suppression chamber in OPERATIONAL CONDITION 1, 2, or 3 is also required by Specification 3.6.2.1.

Repair work might require making the suppression chamber inoperable. This specification will permit those repairs to be made and at the same time give assurance that the irradiated fuel has an adequate cooling water supply when the suppression chamber must be made inoperable, including draining, in OPERATIONAL CONDITION 4 or 5.

In OPERATIONAL CONDITION 4 and 5 the suppression chamber minimum required water volume is reduced because the reactor coolant is maintained at or below 200°F. Since pressure suppression is not required below 212°F, the minimum water volume is based on NPSH, recirculation volume and vortex prevention plus a safety margin for conservatism.

## EMERGENCY CORE COOLING SYSTEM

### BASES

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