

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

(215) 841-4000

April 10, 1989

Docket No. 50-352  
License No. NPF-39

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

SUBJECT: Limerick Generating Station, Unit 1  
Technical Specifications Change Request

Dear Sir:

Philadelphia Electric Company hereby submits Technical Specifications Change Request No. 89-04, in accordance with 10 CFR 50.90, requesting an amendment to the Technical Specifications (Appendix A) of Operating License No. NPF-39. Information supporting this Change Request is contained in Attachment 1 to this letter, and the proposed replacement pages are contained in Attachment 2.

This submittal requests changes to the Technical Specifications to reflect the incorporation of Unit 2 power supplies for common systems into the Unit 1 Technical Specifications.

If you have any questions regarding this matter, please contact us.

Very truly yours,

*G. A. Hunger, Jr.*

G. A. Hunger, Jr.  
Director  
Licensing Section  
Nuclear Support Division

Attachments

cc: W. F. Russell, Administrator, Region I, USNRC  
T. J. Kenny, USNRC Senior Resident Inspector, LGS-1  
T. Gerusky, Director, PA Bureau of Radiological Protection

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COMMONWEALTH OF PENNSYLVANIA :  
 : ss.  
COUNTY OF PHILADELPHIA :

J. W. Gallagher, being first duly sworn, deposes and says:

That he is Vice President of Philadelphia Electric Company, the Applicant herein; that he has read the foregoing Application for Amendment of Facility Operating Licenses to reflect two-unit operation of Limerick Generating Station, and knows the contents thereof; and that the statements and matters set forth therein are true and correct to the best of his knowledge, information and belief.

JW Gallagher  
Vice President

Subscribed and sworn to  
before me this 10<sup>th</sup> day  
of April 1989.

Patricia A. Jones

Notary Public

NOTARIAL SEAL  
PATRICIA A. JONES, Notary Public  
City of Philadelphia, Phila. County  
My Commission Expires Oct. 13, 1990

ATTACHMENT 1

LIMERICK GENERATING STATION

Docket No. 50-352  
License No. NPF-39

TECHNICAL SPECIFICATIONS CHANGE REQUEST

"Cross-Unit Power Supplies"

Supporting Information for Changes - 9 pages

Philadelphia Electric Company, Licensee under Facility Operating License NPF-39 for Limerick Generating Station (LGS) Unit 1, hereby requests that the Technical Specifications (TS) contained in Appendix A of the Operating License be amended as proposed herein to reflect the Unit 2 power distribution systems needed to support common equipment for the operation of LGS Unit 1. The proposed changes are indicated by vertical bars in the margin of the pages 3/4 8-15, 3/4 8-16, 3/4 8-17, 3/4 8-18, 3/4 8-19, 3/4 8-20, and provided in Attachment 2.

Philadelphia Electric Company requests the changes proposed herein to be effective upon issuance of the Unit 2 Low Power Operating License, to ensure that these changes correctly reflect operation of LGS in the final two-unit configuration.

This Change Request provides a discussion and description of the proposed TS changes, a safety assessment of the proposed changes, information supporting a finding of No Significant Hazards Consideration, and information supporting an Environmental Assessment.

#### Discussion and Description of Changes

The proposed TS changes are needed to reflect modifications necessary to change from the current single-unit power supply configuration to a two-unit power supply configuration. These modifications merely implement the final configuration of the original two-unit design that was reviewed

and approved by the NRC in the Safety Evaluation Report (SER), NUREG 0991, dated August, 1983. The final design configuration for Unit 2 power supplies feeding common system components is reflected in the proposed TS to ensure the interdependence between Unit 1 and Unit 2 is properly considered by Unit 1 plant operators. This philosophy is currently reflected in the Unit 2 TS which are in the final stages of development. The proposed changes, therefore, would provide a consistent application of this philosophy to both Unit 1 and Unit 2 TS.

Presently, the common Class 1E spray pond Motor Control Centers (MCCs) 00B521ZC and 00B522ZD are fed from Unit 1 Class 1E 480V AC load centers 10B203ZC and 10B204ZD, respectively. These two safeguard MCCs supply power to spray pond safety related loads associated with Divisions 3 and 4 of the safety related electrical equipment. These loads are common to both units and are required for their safe shutdown and to maintain them in a safe shutdown condition. Loads include the valves associated with the Residual Heat Removal Service Water (RHRSW)/Emergency Service Water (ESW) spray pond subsystem, which reposition automatically when the associated ESW pumps 'C' and 'D' start. These spray pond MCCs will have their power supplies transferred to Class 1E 480V AC load centers 20B203ZC and 20B204ZD. Similarly, Unit 1 Class 1E 125V DC control power supplies will be transferred to the corresponding Unit 2 power supplies to provide control power to the Division 3 and 4 motor operated valves (see below) which are required to be functional in the event of a

design basis accident. The proposed TS changes will make AC and DC power supplies to the different components consistent with respect to the unit associated with these supplies (i.e., AC and DC power supplies to a device should come from the same division in the same unit).

TS changes to pages 3/4 8-15, 3/4 8-16, 3/4 8-17, 3/4 8-18, 3/4 8-19 and 3/4 8-20 are necessary to reflect the following changes.

1. Transfer of the Class 1E 480V AC power supplies for common MCCs 00B521ZC and 00B522ZD from Unit 1 load centers to Unit 2 load centers.
2. Transfer of the Class 1E 125V DC control power supplies from Unit 1 DC panels to Unit 2 DC panels for the following motor operated valves (these valves are part of the ESW/RHRSW systems which are common to both units):
  - a) Spray Pond Wetwell Inlet Valve HV12-003C,
  - b) Spray Pond Spray Nozzle Bypass Valve HV12-031C,
  - c) Spray Pond Spray Nozzle Inlet Valve HV12-032C,
  - d) RHR service water return to Unit 1 Cooling Tower Valve HV12-113, and

- e) Unit 1 Cooling Tower Return to Spray Pond Valve  
HV12-114.

In addition, Unit 1 or Unit 2 designations are being added, where appropriate, to clearly identify the power supplies.

#### Safety Assessment

As previously discussed, the proposed TS changes reflect the segregation of the redundant loads for the ESW and RHRSW systems, between Unit 1 and Unit 2 power supplies in accordance with the original two-unit design. The original design was found acceptable as detailed in the NRC SER, NUREG 0991, dated August, 1983. The final design configuration for Unit 2 power supplies feeding common system components is reflected in the proposed TS. These TS changes will ensure that the interdependence between Unit 1 and Unit 2 is properly considered by plant operators so that the current level of safety is assured.

#### Information Supporting a Finding of No Significant Hazards Consideration

The proposed change to the TS to reflect the Unit 2 power distribution systems needed to support common equipment for operation of LGS Unit 1, do not involve a Significant Hazards Consideration. In order to support a No Significant Hazards

Consideration determination, an evaluation of each of the three standards set forth in 10 CFR 50.92 is provided below.

- A. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed TS changes reflect transfers of several Class 1E 480V AC power supplies and several 125V DC power supplies for the motor operated valves associated with Unit 2 for the common RHRSW, ESW, and Spray Pond systems. The proposed TS changes reflect segregating (approximately in half) the redundant loads for the ESW and RHRSW systems between the Unit 1 and Unit 2 power supplies and has no adverse effect on the ability of Unit 1 to Achieve safe shutdown. Once licensed, the Unit 2 power sources will operate with the same high degree of dependability as the Unit 1 power sources. Hence, supplying common equipment from Unit 2 sources has no effect on the operability of this equipment or on Unit 1 safety. The Final Safety Analysis Report (FSAR) Sections 8.3.1.1.2, 8.3.2, 9.2.2, 9.2.3, and Figures 8.3-2 and 8.3-3 were reviewed in making this determination. The proposed TS changes are consistent with all the design requirements applicable to the original design. These requirements include, but are not limited to, seismic and environmental



qualifications, quality assurance, separation, and testability.

- B. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The transfer of power supplies is in accordance with the original design intent of segregating (approximately in half) the redundant loads for the ESW and RHRSW systems between the Unit 1 and Unit 2 power supplies, and does not reduce the equipment protection provided by the existing design.

The ability of the RHRSW and ESW systems to support safe shutdown of Unit 1 is not adversely affected.

The function or performance of any safety-related or nonsafety-related equipment or system is not affected. The Unit 2 power supply system was designed to carry the additional loading being transferred to it. Hence, there is no degradation in the dependability or operability of the power sources supplying these common loads. FSAR Sections 8.3 and 9.3 were reviewed in making this determination.

The proposed TS changes are consistent with all the design requirements applicable to the original design.

These requirements include, but are not limited to, seismic and environmental qualifications, quality assurance, separation, and testability. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

- C. The proposed changes do not involve a significant reduction in a margin of safety.

The proposed TS changes are necessary to reflect the original two-unit power supply configurations which are being implemented due to the completion and licensing of Unit 2. The power supplies will meet all their original design requirements, and the capacity for performing their safety-related functions will not be reduced. Since the Unit 2 power sources will operate with the same high degree of reliability as Unit 1 power sources, supplying the identified common loads from Unit 2 power sources has no effect on their ability to perform their safety related function for Unit 1. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Information Supporting an Environmental Assessment

An environmental assessment is not required for the changes proposed by this Change Request because the requested changes conform to the criteria for "actions eligible for categorical exclusion" as specified in 10 CFR 51.22(c)(9). The requested changes will have no impact on the environment. This Change Request does not involve a significant hazards consideration as discussed in the preceding section. This Change Request does not involve a significant change in the types or significant increase in the amounts of any effluents that may be released offsite. In addition, this Change Request does not involve a significant increase in individual or cumulative occupational radiation exposure.

Conclusion

The Plant Operations Review Committee and the Nuclear Review Board have reviewed these proposed changes to the TS and have concluded that they do not involve an unreviewed safety question or a significant hazards consideration, and will not endanger the health and safety of the public.