



PECO NUCLEAR

A Unit of PECO Energy

Station Support Department

10 CFR 50.90

PECO Energy Company
965 Chesterbrook Boulevard
Wayne, PA 19087-5691

November 25, 1996

Docket Nos. 50-352
50-353

License Nos. NPF-39
NPF-85

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Subject: Limerick Generating Station, Units 1 and 2
Technical Specifications Change Request No. 96-22-0

Gentlemen:

PECO Energy Company is submitting Technical Specifications (TS) Change Request No. 96-22-0, in accordance with 10 CFR 50.90, requesting an amendment to the TS (Appendix A) of Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively. This proposed TS change involves revising TS Surveillance Requirement (SR) 4.8.1.1.2.e.2, and supporting TS Bases Section 3/4.8, to clarify the requirements associated with single load rejection testing of the Emergency Diesel Generators (EDGs). Specifically, this proposed TS Change involves modifying the wording in TS SR 4.8.1.1.2.e.2 to remove the specific reference to the Residual Heat Removal (RHR) pump motor and its corresponding kW rating value, and replace it with wording consistent with that specified in the Improved TS (i.e., NUREG-1433, Revision 1, "Standard Technical Specifications General Electric Plants").

We request that, if approved, the amendments to the LGS, Units 1 and 2, TS be issued prior to January 24, 1997, and become effective within 30 days following issuance.

If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,

G. A. Hunger, Jr.

G. A. Hunger, Jr.
Director - Licensing

Attachments
Enclosure

cc: H. J. Miller, Administrator, Region I, USNRC (w/ attachments, enclosure)
N. S. Perry, USNRC Senior Resident Inspector, LGS (w/ attachments, enclosure)
R. R. Janati, Director, PA Bureau of Radiological Protection (w/ attachments, enclosure)

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COMMONWEALTH OF PENNSYLVANIA :

: ss.

COUNTY OF CHESTER :

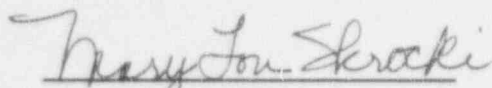
D. B. Fetters, being first duly sworn, deposes and says:

That he is Vice President of PECO Energy Company, the Applicant herein; that he has read the foregoing Technical Specifications Change Request No. 96-22-0 for Limerick Generating Station, Units 1 and 2, Facility Operating License Nos. NPF-39 and NPF-85, concerning Emergency Diesel Generator single load rejection testing, 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.

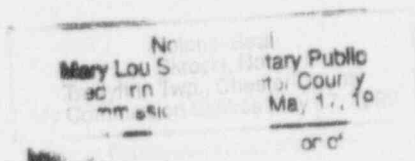


Vice President

Subscribed and sworn to
before me this 25th day
of November 1996.



Notary Public



ATTACHMENT 1

LIMERICK GENERATING STATION

UNITS 1 AND 2

Docket Nos. 50-352
 50-353

License Nos. NPF-39
 NPF-85

TECHNICAL SPECIFICATIONS CHANGE REQUEST

No. 96-22-0

**"Clarification of Single Load Rejection Testing for
Emergency Diesel Generators"**

Supporting Information for Changes - 4 pages

PECO Energy Company, Licensee under Facility Operating License Nos. NPF-39 and NPF-85 for Limerick Generating Station (LGS), Units 1 and 2, respectively, requests that the Technical Specifications (TS) contained in Appendix A to the Operating Licenses be amended as proposed herein to revise TS Surveillance Requirement (SR) 4.8.1.1.2.e.2, and associated TS Bases Section 3/4.8, to clarify the requirements pertaining to single load rejection testing of the Emergency Diesel Generators (EDGs). Specifically, this proposed TS Change involves revising the wording in TS SR 4.8.1.1.2.e.2 to remove the specific reference to the Residual Heat Removal (RHR) pump motor and its corresponding kW rating value, and replace it with wording consistent with that specified in the Improved TS (i.e., NUREG-1433, Revision 1, "Standard Technical Specifications General Electric Plants"). The proposed changes to the TS are shown on the attached mark-up of TS Page 3/4 8-4 and Bases Page B 3/4 8-2 for Units 1 and 2, and are contained in Attachment 2.

PECO Energy is requesting that, if approved, the amendments to the TS be issued by January 24, 1997, and become effective within 30 days of issuance.

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

Discussion and Description of the Proposed Changes

The proposed Technical Specifications (TS) changes to the Limerick Generating Station (LGS), Units 1 and 2, TS involve revising TS Surveillance Requirement (SR) 4.8.1.1.2.e.2, and supporting TS Bases Section 3/4.8, to clarify the requirements associated with performing single load rejection testing of the Emergency Diesel Generators (EDGs). Currently, TS SR 4.8.1.1.2.e.2 stipulates that every 24-months each EDG be tested to verify its capability to reject a load of greater than or equal to that of the Residual Heat Removal (RHR) pump motor while maintaining voltage and frequency within established parameters. The current TS wording reads as follows:

"Every 24 months verify the diesel generator capability to reject a load of greater than or equal to that of the RHR Pump Motor (992 Kw) for each diesel generator while maintaining voltage at 4285 ± 420 volts and frequency at 60 ± 1.2 hz and after steady state conditions are reached, voltage is maintained at 4280 ± 120 volts."

The proposed TS changes revise TS SR 4.8.1.1.2.e.2 to remove the specific reference made to the RHR pump motor, and replaces it with wording consistent with that delineated in the Improved TS (i.e., NUREG-1433, Revision 1, "Standard Technical Specifications General Electric Plants") while maintaining the existing voltage and frequency parameters. The proposed TS wording reads as follows:

"Every 24 months verify each diesel generator's capability to reject a load of greater than or equal to that of its single largest post-accident load while maintaining voltage at 4285 ± 420 volts and frequency at 60 ± 1.2 hz and after steady state conditions are reached, voltage is maintained at 4280 ± 120 volts."

The proposed TS changes also involve revising TS Bases Section 3/4.8 to include a statement clarifying that the single largest post-accident load on each EDG is the RHR pump motor.

Safety Assessment

The proposed TS changes involve revising TS SR 4.8.1.1.2.e.2, and the associated Bases Section 3/4.8, to clarify the requirements associated with Emergency Diesel Generator (EDG) testing and the rejection of the single largest electrical load. Specifically, the proposed changes will revise the TS wording to remove the specific reference to the RHR pump motor and its associated 992 kW loading value, and replace it with wording consistent with that described in NUREG-1433, Revision 1, "Standard Technical Specifications General Electric Plants." The proposed TS SR wording will require that the

EDGs be capable of rejecting the single largest post-accident load while maintaining the current voltage and frequency parameters, rather than making the specific reference to the RHR pump motor. The applicable TS Bases will be revised to provide the appropriate clarification in support of the proposed changes. The proposed TS changes will provide greater flexibility in performing future plant maintenance activities (i.e., replacement of a pump motor or addition of a new post-accident load on the 4kV emergency buses) at Limerick Generating Station (LGS), Units 1 and 2.

TS SR 3.8.1.9 in NUREG-1433, Revision 1, states the following:

"Verify each DG rejects a load greater than or equal to its associated single largest post-accident load, and...."

The supporting Bases for this requirement in NUREG-1433, Revision 1, indicates that each EDG is provided with an overspeed trip to prevent damage to the engine. Recovery from a transient caused by the loss of a large electrical load could cause the EDG engine to overspeed, which, if excessive, might result in the trip of the engine. This SR demonstrates the EDG load response characteristics and capability to reject the single largest post-accident electrical load without exceeding predetermined voltage and frequency parameters and maintaining a specified margin to the overspeed trip.

The proposed TS changes are consistent with the guidance stipulated in NUREG-1433, Revision 1, as described above. There are no changes to the existing voltage and frequency parameters specified in TS SR 4.8.1.1.2.e.2 as a result of the proposed TS changes. The current requirement to maintain voltage at 4285 ± 420 volts and frequency at 60 ± 1.2 hz and steady state conditions at 4280 ± 120 volts will be maintained. The proposed TS changes do not modify any existing EDG testing methods or testing frequencies. The largest post-accident electrical load on each 4kV emergency bus is the RHR pump motor. The RHR pump motors are currently used to perform the single load rejection test for the EDGs in order to satisfy the TS requirements. The RHR pump motors will continue to be used in performing TS SR 4.8.1.1.2.e.2.

The largest electrical loads connected to the 4kV emergency buses are the drywell chillers. However, the drywell chillers are non-safety related loads and are shed from the 4kV emergency buses upon receipt of a Loss-of-Coolant-Accident (LOCA) or Loss-of-Offsite-Power (LOOP) signal. Also, if the EDGs are the only source of AC power (i.e., under LOOP conditions), then the drywell chillers cannot be started due to drywell chilled water process conditions. The drywell chilled water circulation pumps, which provide cooling water to the drywell chillers, cannot operate during LOOP conditions since their electrical supply is provided from a non-safety related power source. With the drywell chilled water pumps not operating, pressure differential and low-flow switches prevent the starting of the drywell chillers.

Although the drywell chillers are the single largest electrical loads connected to the 4kV emergency buses, they are not considered the single largest post-accident load under LOOP conditions when the EDGs are supplying the 4kV emergency buses. The RHR pump motors are the single largest post-accident loads on the 4kV emergency buses.

If non-safety related power is restored while the diesel generators are supplying the 4kV emergency buses, existing administrative controls prevent the drywell chillers from being started until the normal offsite power is restored to the 4kV emergency buses and the EDGs are disconnected from the emergency buses. The existing administrative controls are contained in procedure E-10/20, "Loss of Offsite Power," which requires that offsite power be restored and the EDGs shutdown prior to starting the drywell chilled water system.

Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed changes to Limerick Generating Station (LGS), Units 1 and 2, Technical Specifications (TS), and associated TS Bases, to clarify the requirements for performing Emergency Diesel Generator (EDG) single load rejection testing do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards set forth in 10 CFR 50.92 is provided below.

1. The proposed Technical Specifications (TS) changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed TS changes do not make any physical alterations or modifications to the plant systems or equipment. The proposed changes do not adversely impact the operation of any plant equipment. The EDGs will continue to function as designed to ensure that the necessary electrical power is provided to essential plant equipment to mitigate the consequences of an accident, e.g., Loss-of-Offsite-Power (LOOP) and Loss-of-Coolant Accident (LOCA) coincident with a LOOP (LOCA/LOOP). The proposed TS changes do not impact the performance testing requirements associated with the EDGs. The accident mitigating capabilities of the diesel generators and emergency loads will remain the same.

The proposed TS changes are consistent with the guidance stipulated in NUREG-1433, Revision, "Standard Technical Specification General Electric Plants," regarding single load rejection testing of the EDGs. Specifically, the proposed changes involve revising the wording in TS Surveillance Requirement (SR) 4.8.1.1.2.e.2 to remove the specific reference to the Residual Heat Removal (RHR) pump motor and associated kW loading value (992 kW), and replace it with wording indicating that the EDGs must be capable of rejecting the single largest post-accident load, which is consistent with NUREG-1433, Revision 1, guidance. The proposed changes will also provide additional flexibility for future plant maintenance activities.

Each EDG will continue to be tested by rejecting a load of greater than or equal to that of its single largest post-accident load while maintaining voltage and frequency within the current specified parameters. The RHR pump motors are currently used in performing the EDG single load rejection testing. The RHR pump motors will continue to be used in performing the surveillance testing since they are the single largest post-accident electrical load. The consequences of a malfunction of equipment are not affected. Failure of a EDG or its safety-related loads is bounded by the loss of a Class 1E electrical power division which has been previously evaluated as discussed in LGS Updated Final Safety Analysis Report (UFSAR) Sections 8.1.5.2.e and 8.3.1.1.3.

Therefore, the proposed TS changes do not involve an increase in the probability or consequences of an accident previously evaluated.

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

The proposed TS changes do not make any physical alterations or modifications to the plant systems or equipment. The proposed changes do not adversely impact the operation of any plant equipment. The EDGs will continue to function as designed to provide essential electrical power to mitigate the consequences of an accident. The proposed TS changes are consistent with the guidance stipulated in NUREG-1433, Revision 1, regarding single load rejection testing of the EDGs. The proposed changes do not introduce any new accidents or transients. The proposed TS changes will provide additional flexibility for future maintenance activities. The

proposed changes do not alter any EDG testing requirements or frequencies. The RHR pump motors are currently used in performing the EDG single load rejection testing. The RHR pump motors will continue to be used in performing the surveillance testing since they are the single largest post-accident electrical load. The operation of the EDGs and their corresponding safety-related electrical loads remain unchanged as a result of the proposed TS changes.

Therefore, the proposed TS changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed TS changes do not involve a significant reduction in a margin of safety.

The proposed TS changes do not involve any physical changes to plant systems or equipment. The proposed TS changes are consistent with the guidance stipulated in NUREG-1433, Revision 1, "Standard Technical Specification General Electric Plants," regarding single load rejection testing of the EDGs. The proposed TS changes will provide additional flexibility for future plant maintenance activities. The EDGs will continue to function as designed to provide essential electrical power to mitigate the consequences of an accident. The operation of the EDGs and their corresponding safety-related electrical loads remain unchanged as a result of the proposed TS changes.

Therefore, the proposed TS 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 TS Change Request because the requested changes to the LGS, Units 1 and 2, TS 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. The proposed changes do not involve a significant hazards consideration as discussed in the preceding section. The proposed changes do not involve a significant change in the types or significant increase in the amounts of any effluent that may be released offsite. In addition, the proposed changes do 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 the proposed changes to the LGS, Units 1 and 2, TS and have concluded that they do not involve an unreviewed safety question, and will not endanger the health and safety of the public.

ATTACHMENT 2

LIMERICK GENERATING STATION

UNITS 1 AND 2

Docket Nos. 50-352
50-353

License Nos. NPF-39
NPF-85

TECHNICAL SPECIFICATIONS CHANGE REQUEST

No. 96-22-0

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