

PHILADELPHIA ELECTRIC COMPANY

NUCLEAR GROUP HEADQUARTERS

955-65 CHESTERBROOK BLVD.

WAYNE, PA 19087-5691

(215) 640-6000

10CFR50.90

August 3, 1993

STATION SUPPORT DEPARTMENT

Docket No. 50-352

License No. NPF-39

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

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

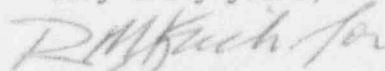
Gentlemen:

Philadelphia Electric Company (PECo) is submitting Technical Specifications (TS) Change Request No. 93-05-1, in accordance with 10 CFR 50.90, requesting an amendment to the TS (Appendix A) of Operating License No. NPF-39 for Limerick Generating Station (LGS), Unit 1. This proposed TS change will remove certain remote shutdown system control valves and primary containment isolation valves from TS Tables 3.3.7.4-1 and 3.6.3-1 respectively, as a result of eliminating the steam condensing mode of the Residual Heat Removal (RHR) system. Information supporting this Change Request is contained in Attachment 1 to this letter, and the proposed replacement pages for the LGS Unit 1 TS are contained in Attachment 2. A similar change to the LGS Unit 2 TS is not included in this Change Request because of differences in the affected configuration between Unit 1 and Unit 2. A separate TS Change Request for Unit 2 is planned to be submitted in the near future.

We request that, if approved, the amendment to the LGS Unit 1 TS be effective by January 29, 1994.

If you have any questions, please do not hesitate to contact us.

Very truly yours,



G. A. Hunger, Jr.
Director
Licensing Section

Attachments

cc: T. T. Martin, Administrator, Region I, USNRC w/ attachments
N. S. Perry, USNRC Senior Resident Inspector, LGS "
W. P. Dornsife, Director, PA Bureau of Radiological Protection
w/attachments

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ADD 1

COMMONWEALTH OF PENNSYLVANIA:

: ss.


COUNTY OF CHESTER :

G. R. Rainey, 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 License No. NPF-39 (Technical Specifications Change Request No. 93-05-1) to delete certain primary containment isolation valves and remote shutdown system control valves as a result of eliminating the steam condensing mode of the RHR system at Limerick Generating Station Unit 1, 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 3rd day
of AUGUST 1993.



Notary Public

NOTARIAL SEAL
CATHERINE A. MENDEZ, Notary Public
Tredyffrin Twp., Chester County
My Commission Expires Sept. 4, 1993

ATTACHMENT 1

LIMERICK GENERATING STATION

UNIT 1

Docket No. 50-352

License No. NPF-39

TECHNICAL SPECIFICATIONS CHANGE REQUEST

No. 93-05-1

"Delete Certain Primary Containment Isolation Valves and
Remote Shutdown System Control Valves
as a Result of Eliminating the Steam
Condensing Mode of the Residual Heat
Removal System - Unit 1"

Supporting Information for Changes - 5 pages

Philadelphia Electric Company (PECo), Licensee under Facility Operating License No. NPF-39 for Limerick Generating Station (LGS), Unit 1, requests that the Technical Specifications (TS) contained in Appendix A to the Operating License be amended as proposed herein, to remove certain remote shutdown system control valves and primary containment isolation valves from TS Tables 3.3.7.4-1 and 3.6.3-1 respectively, as a result of eliminating the steam condensing mode of the Residual Heat Removal (RHR) system. The proposed changes to the TS are indicated by the vertical bars in the margin of the TS pages 3/4 3-80, 3/4 6-29 and 3/4 6-30. The TS pages showing the proposed changes are contained in Attachment 2.

We request that, if approved, the TS changes proposed herein be effective by January 29, 1994, to facilitate implementation of these changes during the upcoming fifth Unit 1 refueling outage.

This 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 function of the Residual Heat Removal (RHR) system steam condensing mode is to condense all of the steam generated by the reactor core after a reactor SCRAM. The steam condensing mode has never been used at Limerick Generating Station (LGS), Unit 1 or Unit 2. Presently, a portion of the components that are exclusively associated with this mode of the RHR system are abandoned in place, which renders the mode inoperable. However, routine preventive maintenance and surveillance testing continues to be required to be performed on various components that are exclusively associated with the steam condensing mode. These activities are time consuming and costly. Accordingly, a modification is planned to be performed during the upcoming fifth Unit 1 refueling outage expected to begin by January 29, 1994, that will remove from service the remainder of the steam condensing mode components and will thereby eliminate any further required testing of, or preventive maintenance on these components. These proposed changes involve the following.

Technical Specifications (TS) Table 3.3.7.4-1 will be revised to show the removal of the following remote shutdown system control valves.

- RHR heat exchanger discharge line to Reactor Core Isolation Cooling (RCIC) system valve:
HV-51-1F026A
- Steam supply line to RHR heat exchanger valve:
HV-51-1F052A
- Steam supply line to RHR heat exchanger warm-up bypass valve:
HV-51-153A

These valves are not containment isolation valves and will be abandoned in place.

The piping associated with valves HV-51-1F052A and HV-51-153A will be cut and steel plates will be welded at the ends, isolating the RHR system from the High Pressure Coolant Injection (HPCI) system. Valve HV-51-F026A will be abandoned in place, in the closed position and de-energized. These valves are not being used presently in Unit 1 and the interfacing systems are not impacted by these changes.

TS Table 3.6.3-1 will be revised to show the deletion of certain Primary Containment Isolation Valves (PCIVs) as described below.

The following pressure safety (i.e., relief) valves will be physically removed from the plant and replaced by blank flanges.

- RHR system steam condensing mode relief valve discharge:
PSV-51-101A (B)
PSV-51-1F055 A(B)
PSV-51-1F097

Primary containment penetration X-240 associated with valve PSV-51-1F097 will be capped and will become part of the primary containment structure. The portion of piping between the primary containment and the flanges replacing the PSVs, will not be affected and will continue to meet the original design requirements.

The RHR vacuum relief suction inboard PCIV HV-51-130 and the associated piping leading up to the associated outboard PCIV HV-51-131 will be physically removed from the plant. Valve HV-51-131 will be abandoned in place, in the closed position and de-energized. The associated primary containment penetration (i.e., X-225) will be capped, as well as the piping upstream of HV-51-131. This valve will not be a containment isolation valve following these modifications (i.e., capping penetration X-225). The associated piping will continue to meet the original design requirements. The components associated with the steam condensing mode of the RHR system are Seismic Category I, but have no safety-related function (i.e., no credit is taken in the Updated Final Safety Analysis Report (UFSAR) for this mode of the RHR to mitigate an accident). However, the RHR system piping and valves associated with this mode are safety-related for pressure and structural integrity. All valves to be removed from service or abandoned in place, are designed only for the RHR system steam condensing mode. The operation or safety-related function of the RHR or HPCI systems will not be affected by these changes. The flanges and penetration caps that will become part of the primary containment boundary will be periodically tested for leakage in accordance with the primary containment Integrated Leak Rate Testing (ILRT) Program at LGS. Therefore, we propose that TS Tables 3.3.7.4-1 and 3.6.3-1 be changed to reflect the removal of certain remote shutdown system control valves and PCIVs from Unit 1, as well as the corresponding changes to the primary containment pressure boundary.

Safety Assessment

The Residual Heat Removal (RHR) system steam condensing mode is a non-safety related function of RHR; however, the pressure and structural integrity of the piping and valves are safety related. The proposed changes will not affect any components required to perform the safety-related function of the RHR or High Pressure Coolant Injection (HPCI) systems.

The ability of the RHR, and HPCI systems to respond to an accident will not be degraded by these proposed changes. The proposed changes will have no impact on the existing High Energy Line Break (HELB) analysis for Limerick Generating Station (LGS). Only valves specifically dedicated for use for the RHR system steam condensing mode will be abandoned in-place, or removed from the plant. The other modes of RHR (e.g., Low Pressure Coolant Injection (LPCI), Shutdown Cooling (SDC)), will not be affected by these proposed changes.

All safety-related flanges and pipe caps added to the safety-related portions of piping for the RHR and HPCI systems, and the primary containment penetration caps will be fabricated and installed in accordance with the original design requirements, i.e., the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section III, Class 2, 1971 Edition with Addenda through Winter 1971. All piping and components that will remain operable will continue to meet the original design requirements. The flanges and penetration caps that will become part of the primary containment boundary will be periodically tested for leakage in accordance with the primary containment Integrated Leak Rate Testing (ILRT) Program at LGS.

The planned modification will also result in downgrading the portion of RHR system piping abandoned in place, from safety related to non-safety related, since this piping will no longer be a part of the primary containment pressure boundary and will be isolated from the RHR and HPCI systems. All pipe caps and plates added to these downgraded portions of piping will be designed, fabricated, and installed in accordance with the requirements of American National Standards Institute (ANSI) standard B31.1 Power Piping Code - 1973 Edition and Addenda through Winter 1974. This piping will be qualified to meet, as a minimum, Seismic Category IIA requirements.

Information Supporting a Finding of No Significant Hazards Consideration

We have concluded that the proposed changes to the LGS Unit 1 TS, which remove certain remote shutdown system control valves and primary containment isolation valves from TS Tables 3.3.7.4-1 and 3.6.3-1 respectively, as a result of eliminating the steam condensing mode of the RHR system, do not involve a Significant Hazards Consideration. In support of this determination, an evaluation of each of the three (3) standards set forth in 10CFR50.92 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.

These proposed changes will result in abandoning in place certain remote shutdown system control valves and removing from service and abandoning in place certain Primary Containment Isolation Valves (PCIVs) associated with the Residual Heat Removal (RHR) system steam condensing mode, and will remove the interface between the High Pressure Coolant Injection (HPCI) and RHR systems, therefore changing the primary containment pressure boundary.

The RHR system steam condensing mode is a non-safety related function of the RHR system; however, the pressure and structural integrity of the associated piping and valves are safety-related. These proposed changes will not affect any components required to perform the safety-related function of the RHR or HPCI systems.

The ability of the RHR or HPCI systems to respond to an accident will not be degraded. Only valves specifically dedicated for use for the RHR system steam condensing mode will be abandoned in-place, or removed from the plant. The flanges and penetration caps that will become part of the primary containment boundary will be periodically tested for leakage as required by TS and 10CFR50, Appendix J. All piping and components that will remain operable, will meet the original design requirements. The other modes of operation of the RHR system (e.g., Low Pressure Coolant Injection (LPCI), Shutdown cooling (SDC)), will not be affected by these changes. 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.

No new failure modes of RHR or HPCI systems are created by the proposed TS changes. The proposed changes will have no impact on the existing High Energy Line Break (HELB) analysis for Limerick Generating Station (LGS). All valves or piping removed and/or abandoned in place, are dedicated specifically for the RHR system steam condensing mode, and will not affect the operation of any components or piping required for other modes of operation of the RHR or HPCI systems. Therefore, the proposed TS changes do not create the possibility of a new or different kind of accident from any previously evaluated.

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

The steam condensing mode is a non-safety related function of the RHR system and, therefore, is not addressed in the TS. This mode will be physically separated from the other modes of operation of RHR and HPCI systems, and consequently, will not preclude them from performing their safety-related functions. The remote shutdown system control valves to be abandoned in place are not being used presently, and the proposed changes will not impact the safe operation of LGS Unit 1. The primary containment penetration caps, safety-related pipe caps and the flanges replacing the removed PCIVs will be designed, fabricated and installed in accordance with the original design requirements, i.e., American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section III, 1971 Edition with Addenda through Winter 1971. The added penetration caps and flanges will be capable of maintaining the primary containment pressure boundary and isolation capabilities that were required of the PCIVs and will be tested for leakage periodically, as required by TS and 10CFR50, Appendix J. Additionally, all piping and components that will remain operable, will meet original design requirements. Therefore, the proposed TS changes do not involve a 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 to the LGS Unit 1 TS conform to the criteria for "actions eligible for categorical exclusion," as specified in 10CFR51.22(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 effluents 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 these proposed changes to the LGS Unit 1 TS and have concluded that they do not involve an unreviewed safety question, and will not endanger the health and safety of the public.