

January 10, 2005

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Limerick Generating Station, Unit 1  
Facility Operating License No. NPF-39  
NRC Docket No. 50-352

**SUBJECT:** License Amendment Request  
Proposed Change to Delete License Conditions from Appendix C of the Facility  
Operating License.

**REFERENCE:** Letter dated May 14, 1998, Bartholomew C. Buckley, USNRC, to Garrett D. Edwards, PECO Energy Company, "Limerick Generating Station, Unit 1 - Replacement Suction Strainers for the Emergency Core Cooling System (TAC No. M99856)."

Pursuant to 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon), hereby requests a change to the Facility Operating License (FOL) No. NPF-39 for Limerick Generating Station (LGS), Unit 1.

The proposed change will delete the License Conditions concerning emergency core cooling system (ECCS) pump suction strainers from Appendix C of the LGS Unit 1 FOL that were added by Amendment No. 128 (Reference letter). These License Conditions are related to the implementation of a plant modification to support the installation of replacement suction strainers for the ECCS at LGS Unit 1. The first Condition provided a one time authorization to incorporate changes to the description of the facility in the Updated Final Safety Analysis Report (UFSAR) to reflect the modification which has been completed. The second Condition requires visual inspection of the suppression pool floor and ECCS pump suction strainers for sludge accumulation and foreign material every other refueling outage. The inspection requirement and inspection interval are not being changed as part of this license amendment request. In addition, the inspection requirement and inspection interval are described in the UFSAR and are incorporated in Exelon's preventive maintenance program. Any future changes to either the inspection requirement or the inspection interval would be controlled in accordance with the appropriate regulatory requirements, i.e., 10 CFR 50.59 and 10 CFR 50.65. Information supporting the change would be available on site for NRC review.

The proposed change eliminates License Conditions contained in Appendix C of the Unit 1 FOL that pertain to historical action that has been completed, or the requirements of which are controlled in accordance with other regulatory processes.

Attachment 1 provides the evaluation of the proposed change. Attachments 2 and 3 provide a copy of the marked up FOL page and typed FOL page, respectively, for the proposed change.

Exelon has concluded that the proposed change presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c).

Exelon requests approval of the proposed amendment by January 14, 2006, with implementation within 60 days of issuance of the amendment.

There are no new regulatory commitments contained within this letter.

The proposed change has been reviewed by the Plant Operations Review Committee and approved by the Nuclear Safety Review Board.

Exelon is notifying the State of Pennsylvania of this application for a change to the FOL by transmitting a copy of this letter and its attachments to the designated State Official.

If you have any questions or require additional information, please contact Glenn Stewart at 610-765-5529.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 10 day of January, 2005.

Respectfully,



Ron J. DeGregorio  
Site Vice President  
Limerick Generating Station  
Exelon Generation Company, LLC

Attachments:

1. Evaluation of the Proposed Change
2. Facility Operating License Marked-up Page - LGS, Unit 1
3. Facility Operating License Typed Page - LGS, Unit 1

cc: Regional Administrator - NRC Region I  
NRC Senior Resident Inspector - LGS  
NRC Project Manager, NRR - LGS  
Director, Bureau of Radiation Protection - Pennsylvania Department  
of Environmental Protection

w/ attachments  
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**ATTACHMENT 1**

**LICENSE AMENDMENT REQUEST**

**LIMERICK GENERATING STATION, UNIT 1  
DOCKET NO. 50-352**

**EVALUATION OF THE PROPOSED CHANGE**

**Subject: Proposed Change to Delete License Conditions from Appendix C of the Facility Operating License**

- 1.0 DESCRIPTION**
- 2.0 PROPOSED CHANGES**
- 3.0 BACKGROUND**
- 4.0 TECHNICAL ANALYSIS**
- 5.0 REGULATORY ANALYSIS**
- 6.0 ENVIRONMENTAL CONSIDERATION**
- 7.0 REFERENCES**

## 1.0 DESCRIPTION

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," Exelon Generation Company, LLC (Exelon), requests a change to the Facility Operating License (FOL) No. NPF-39 for Limerick Generating Station (LGS), Unit 1.

The proposed change will delete the License Conditions concerning emergency core cooling system (ECCS) suction strainers from Appendix C of the LGS Unit 1 FOL that were added by Amendment No. 128 (Reference 1). These License Conditions are related to the implementation of a plant modification to support the installation of replacement suction strainers for the ECCS at LGS Unit 1. The first Condition provided a one time authorization to incorporate changes to the description of the facility in the Updated Final Safety Analysis Report (UFSAR) to reflect the modification. The second Condition requires visual inspection of the suppression pool floor and ECCS pump suction strainers for sludge accumulation and foreign material every other refueling outage. The inspection requirement and inspection interval are not being changed as part of this license amendment request. In addition, the inspection requirement and inspection interval are described in the UFSAR and are incorporated in Exelon's preventive maintenance program. Any future changes to either the inspection requirement or the inspection interval would be controlled in accordance with the appropriate regulatory requirements, i.e., 10 CFR 50.59 and 10 CFR 50.65. Information supporting the change would be available on site for NRC review.

The proposed change eliminates License Conditions contained in Appendix C of the Unit 1 FOL that pertain to historical action that has been completed, or the requirements of which are controlled in accordance with other regulatory processes.

## 2.0 PROPOSED CHANGES

LGS Unit 1 FOL, Appendix C, identifies the following additional License Conditions:

"This amendment authorizes the licensees to incorporate in the Updated Final Safety Analysis Report (UFSAR) certain changes to the description of the facility. Implementation of this amendment is the incorporation of these changes as described in the licensee's application dated October 6, 1997, as supplemented by letter dated February 2, 1998, and evaluated in the safety evaluation dated May 14, 1998."

"The suppression pool floor and the low pressure ECCS (RHR and Core Spray) suction strainers shall be visually inspected for sludge accumulation and foreign material. The visual inspection allows use of a remote camera in lieu of divers. The interval of these inspections shall be every other refueling outage. The inspection interval may be increased based on findings of two consecutive inspections. Should the licensee choose to increase the inspection interval, data supporting the increase shall be submitted to the NRC for review."

Exelon proposes to delete these Conditions from Appendix C of the Unit 1 FOL.

## 3.0 BACKGROUND

By letters dated November 1, 1996 (Reference 2), and October 6, 1997 (Reference 3), Philadelphia Electric Company (now Exelon Generation Company, LLC) submitted responses to NRC Bulletin 96-03 (Reference 4), "Potential Plugging of Emergency Core Cooling Suction

Strainers by Debris in Boiling Water Reactors," for LGS, Units 1 and 2. The October 6, 1997, letter requested a license amendment under 10 CFR 50.90 to revise the LGS licensing basis for sizing new suction strainers on the ECCS low pressure pumps; specifically, the residual heat removal (RHR) and the core spray (CS) systems. The previous licensing basis did not account for debris loading on the strainers. The October 6, 1997 letter provided the methodology intended to be used for estimating the debris loadings on the new suction strainers being installed in response to NRC Bulletin 96-03. The letter requested NRC review and approval of the criteria. By letter dated December 30, 1997 (Reference 5), the NRC requested additional clarifying information. By letter dated February 2, 1998 (Reference 6), a response was provided to the information requested for LGS, Unit 1 only, since the net positive suction head (NPSH) analyses for the LGS, Unit 2, RHR and CS system pumps had not yet been updated to reflect the new strainer design values. Therefore, the NRC evaluation of LGS, Unit 2, was deferred until the requested information was subsequently provided.

During review of the license amendment request, the NRC questioned the ability of TS surveillances for the RHR and CS pumps existing at the time to adequately demonstrate the strainer's operability since these same surveillances were conducted by LGS prior to the strainer clogging event that led to the issuance of NRC Bulletin 95-02 (Reference 7), "Unexpected Clogging of a Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cooling Mode." By letter dated April 3, 1997 (Reference 8), related to the response to NRC Bulletin 95-02, a plan was provided for inspection of the ECCS pump suction strainers and suppression pool every other refueling outage. The NRC concurred that, given the installation of the new strainers and the margin in the new strainer design, the proposed inspection plan would be appropriate and by Amendment No. 128, dated May 14, 1998, incorporated the inspection plan as a License Condition in Appendix C of the Unit 1 FOL. In addition, a License Condition was added to Appendix C of the Unit 1 FOL to authorize the incorporation in the UFSAR certain changes to the description of the facility as described in the license amendment application dated October 6, 1997, as supplemented February 2, 1998, and evaluated in the NRC safety evaluation dated May 14, 1998.

Subsequently, during processing of the related LGS, Unit 2, license amendment, the NRC determined that it was not necessary to add these additional Conditions to the FOL. As a result, the LGS, Unit 2, license Amendment No. 99 (Reference 9) did not contain these License Conditions. This license amendment request is being submitted to achieve consistency between the LGS, Unit 1 and Unit 2, FOLs.

#### **4.0 TECHNICAL ANALYSIS**

The UFSAR changes to the description of the facility for installation of the ECCS pump suction strainers, as described in the license amendment application dated October 6, 1997, and as supplemented February 2, 1998, were completed in the Revision 9 update of the UFSAR in November, 1999. Therefore, the Appendix C License Condition pertaining to this incorporation has been satisfied and is no longer required.

The License Condition requirement to inspect the ECCS pump suction strainers and the suppression pool floor for sludge accumulation and foreign material at a frequency of once every other refueling outage was incorporated into Section 6.2.2.4 of the UFSAR as part of the UFSAR update described above. In addition, the inspection requirement and the inspection interval are incorporated in Exelon's preventive maintenance program. The inspection

requirement and the inspection interval are not being changed as part of this license amendment request. Any future changes to either the inspection requirement or the inspection interval would be controlled in accordance with the appropriate regulatory requirements, i.e., 10 CFR 50.59 and 10 CFR 50.65. Information supporting the change would be available on site for NRC review. Therefore, this License Condition is not necessary.

In summary, the proposed change is acceptable because the Conditions contained in Appendix C of the Unit 1 FOL pertain to historical action that has been completed, or are controlled in accordance with other regulatory processes.

## **5.0 REGULATORY ANALYSIS**

### **5.1 No Significant Hazards Consideration**

Exelon has evaluated whether or not a significant hazards consideration is involved with the proposed amendment by focusing on the three standards set forth in 10 CFR 50.92, "Issuance of amendment," as discussed below. The proposed deletion of the additional Conditions specified in Appendix C of the Limerick Generating Station (LGS), Unit 1, Facility Operating License (FOL) does not involve a significant hazards consideration for the following reasons:

#### **1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No. The proposed change is administrative in nature. The proposed change does not involve the modification of any plant equipment nor does it affect basic plant operation. The proposed change will have no impact on any safety related structures, systems or components. The License Conditions proposed for deletion pertain to actions that have been completed and are obsolete, or involve activities that are controlled in accordance with other regulatory processes, i.e., 10 CFR 50.59 and 10 CFR 50.65.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

#### **2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?**

Response: No. The proposed change is administrative in nature. The proposed change has no impact on the design, function or operation of any plant structure, system or component and does not affect any accident analyses. The License Conditions in Appendix C can be deleted because they are obsolete or involve activities that are controlled in accordance with other regulatory processes.

Therefore, the proposed change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

### **3. Does the proposed change involve a significant reduction in a margin of safety?**

Response: No. The proposed change is administrative in nature, does not negate any existing requirement, and does not adversely affect existing plant safety margins or the reliability of the equipment assumed to operate in the safety analysis. As such, there is no change being made to safety analysis assumptions, safety limits or safety system settings that would adversely affect plant safety as a result of the proposed change. Margins of safety are unaffected by deletion of the License Conditions.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

Based on the above, Exelon concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and accordingly, a finding of “no significant hazards consideration” is justified.

### **5.2 Applicable Regulatory Requirements/Criteria**

10 CFR 50.46 requires that the ECCS be designed to meet five criteria, one of which is to provide adequate flow capability for a sufficient duration of time to maintain the core temperature at an acceptably low value and to remove decay heat for the extended period of time required by the long-lived radioactivity remaining in the core following a design basis Loss of Coolant Accident (LOCA). Suppression pool and ECCS pump suction strainer cleanliness can adversely impact ECCS performance and could prevent the ECCS from performing its safety function of long-term decay heat removal following a LOCA. The changes to the description of the facility as a result of the ECCS pump suction strainer modification have been incorporated into the UFSAR, and are administrative in nature. In addition, the requirement for visual inspection of the suppression pool and ECCS pump suction strainers once every other refueling outage is described in the UFSAR and is incorporated in the preventive maintenance program, and is not being changed as part of this license amendment request. Therefore, the requirements of 10 CFR 50.46 will continue to be met with respect to implementation of the proposed change.

In conclusion, based on the considerations discussed above, (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.

## **6.0 ENVIRONMENTAL CONSIDERATION**

The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement, or environmental assessment need be prepared in connection with the proposed amendment.

## 7.0 REFERENCES

1. Letter dated May 14, 1998, Bartholomew C. Buckley, USNRC, to Garrett D. Edwards, PECO Energy Company, "Limerick Generating Station, Unit 1 - Replacement Suction Strainers for the Emergency Core Cooling System (TAC No. M99856)."
2. Letter dated November 1, 1996, G. A. Hunger, PECO Energy Company, to USNRC, "Response to NRC Bulletin 96-03, 'Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling Water Reactors'."
3. Letter dated October 6, 1997, G. A. Hunger, PECO Energy Company, to USNRC, "Request for License Amendments Associated with ECCS Pump Suction Strainer Plant Modification."
4. NRC Bulletin 96-03, "Potential Plugging of Emergency Core Cooling Suction Strainers by Debris in Boiling-Water Reactors," dated May 6, 1996.
5. Letter dated December 30, 1997, Bartholomew C. Buckley, USNRC, to George A. Hunger, PECO Energy Company, "Limerick Generating Station, Units 1 and 2 - Request for Additional Information Regarding Emergency Core Cooling System (ECCS) Pump Suction Strainer Modification (TAC Nos. M99856 and M99857)."
6. Letter dated February 2, 1998, John B. Cotton, PECO Energy Company, to USNRC, "Response to Request for Additional Information, Emergency Core Cooling System Suction Strainer Modification."
7. NRC Bulletin 95-02, "Unexpected Clogging of a Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cooling Mode," dated October 17, 1995.
8. Letter dated April 3, 1997, G. A. Hunger, PECO Energy Company, to USNRC, "Response to Request for Additional Information Concerning NRC Bulletin 95-02, 'Unexpected Clogging of a Residual Heat Removal (RHR) Pump Strainer While Operating in Suppression Pool Cooling Mode'."
9. Letter dated May 19, 1999, Bartholomew C. Buckley, USNRC, to Garrett D. Edwards, PECO Energy Company, "Limerick Generating Station, Unit 2 - Replacement Suction Strainers for the Emergency Core Cooling System (TAC No. M99857)."



**ATTACHMENT 2**

**LICENSE AMENDMENT REQUEST**

**LIMERICK GENERATING STATION, UNIT 1  
DOCKET NO. 50-352**

**PROPOSED CHANGE TO DELETE LICENSE CONDITIONS  
FROM APPENDIX C OF THE FACILITY OPERATING LICENSE**

**UNIT 1 MARKED-UP FACILITY OPERATING  
LICENSE PAGE FOR THE PROPOSED CHANGE**

**Facility Operating License, Appendix C, Page 1**

APPENDIX C

ADDITIONAL CONDITIONS  
OPERATING LICENSE NO. NPF-39

~~DELETED~~

~~Exelon Generation Company, LLC shall comply with the following conditions on the schedules noted below.~~

<del>Amendment Number</del>	<del>Additional Conditions</del>	<del>Implementation Date</del>
<del>128</del>	<del>This amendment authorizes the licensees to incorporate in the Updated Final Safety Analysis Report (UFSAR) certain changes to the description of the facility. Implementation of this amendment is the incorporation of these changes as described in the licensee's application dated October 6, 1997, as supplemented by letter dated February 2, 1998, and evaluated in the safety evaluation dated May 14, 1998.</del>	<del>30 days from May 14, 1998</del>
<del>128</del>	<del>The suppression pool floor and the low pressure ECCS (RHR and Core Spray) suction strainers shall be visually inspected for sludge accumulation and foreign material. The visual inspection allows use of a remote camera in lieu of divers. The interval of these inspections shall be every other refueling outage. The inspection interval may be increased based on findings of two consecutive inspections. Should the licensee choose to increase the inspection interval, data supporting the increase shall be submitted to the NRC for review.</del>	<del>30 days from May 14, 1998</del>

**ATTACHMENT 3**

**LICENSE AMENDMENT REQUEST**

**LIMERICK GENERATING STATION, UNIT 1  
DOCKET NO. 50-352**

**PROPOSED CHANGE TO DELETE LICENSE CONDITIONS  
FROM APPENDIX C OF THE FACILITY OPERATING LICENSE**

**UNIT 1 TYPED FACILITY OPERATING  
LICENSE PAGE FOR THE PROPOSED CHANGE**

**Facility Operating License, Appendix C, Page 1**

APPENDIX C  
ADDITIONAL CONDITIONS  
OPERATING LICENSE NO. NPF-39

DELETED