

February 12, 2015

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

Limerick Generating Station, Unit 2
Renewed Facility Operating License No. NPF-85
NRC Docket No. 50-353

Subject: Exigent License Amendment Request – Extension of Implementation Period for License Amendment No. 174, Leak Detection System Technical Specification Setpoint, Allowable Value and Design Basis Changes

In accordance with 10 CFR 50.90, "Application for amendment of license or construction permit," and 10 CFR 50.91(a)(6) (exigent requests) Exelon Generation Company, LLC (Exelon) is requesting exigent approval for a license amendment to extend the implementation period for License Amendment No. 174 to Renewed Facility Operating License No. NPF-85 for Limerick Generating Station (LGS) Unit 2. License Amendment No. 174 was issued on December 29, 2014.

The need for the proposed change is based on an unforeseen equipment deficiency associated with LGS Unit 2 Temperature Indicating Switch, TIS-025-201B, Steam Leak Detection Temperature Monitor Division 2/B1. As discussed with NRC staff on February 6 and 9, 2015, an exigent license amendment request is needed to ensure compliance with operating license requirements. This request is purely administrative in nature, in that it will change the 60-day implementation period to prior to startup from the LGS Spring 2015 Unit 2 Refueling Outage.

Attachment 1 provides the Evaluation of Proposed Change.

The proposed change has been reviewed by the LGS Plant Operations Review Committee and approved in accordance with Nuclear Safety Review Board procedures.

Exelon requests approval of the proposed amendment by February 27, 2015. Once approved, the amendment shall be implemented prior to startup from the LGS Spring 2015 Unit 2 Refueling Outage.

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There are no regulatory commitments contained in this request.

Using the standards in 10 CFR 50.92, "Issuance of amendment," Exelon has concluded that the proposed change does not constitute a significant hazards consideration as described in the enclosed analysis performed in accordance with 10 CFR 50.91(a)(1).

In accordance with 10 CFR 50.91, "Notice for public comment; State consultation," Exelon is notifying the Commonwealth of Pennsylvania of this application for change to the LGS Unit 2 Operating License by transmitting a copy of this letter and its attachment to the designated state official.

Should you have any questions concerning this submittal, please contact Frank Mascitelli at (610) 765-5512.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 12th day of February 2015.

Respectfully,



James Barstow
Director, Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Attachments: 1) Evaluation of Proposed Change

cc: USNRC Regional Administrator, Region I
USNRC Project Manager, LGS
USNRC Senior Resident Inspector, LGS
Director, Bureau of Radiation Protection – PA Department of Environmental
Resources

ATTACHMENT 1

EVALUATION OF PROPOSED CHANGE

SUBJECT: Extension of Implementation Period for License Amendment No. 174, Leak Detection System Technical Specification Setpoint, Allowable Value and Design Basis Changes

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**Extension of Implementation Period for License Amendment No. 174,
Leak Detection System Technical Specification Setpoint, Allowable Value
and Design Basis Changes**

1.0 SUMMARY DESCRIPTION

This evaluation supports an exigent license amendment request to extend the implementation period for License Amendment No. 174, Leak Detection System Technical Specification (TS) Setpoint, Allowable Value and Design Basis Changes (Reference 1) to ensure compliance with Renewed Operating License No. NPF-85 for Limerick Generating Station (LGS) Unit 2.

Exelon Generation Company, LLC (Exelon) proposes to extend the implementation period associated with License Amendment No. 174 from the currently approved 60 days to prior to startup from the LGS Spring 2015 Unit 2 Refueling Outage. This Refueling Outage is scheduled to start on April 13, 2015.

By letter dated December 29, 2014, the NRC issued License Amendment No. 174, for LGS Unit 2. The amendment revised TS setpoints and allowable values for certain area temperature instrumentation associated with the Leak Detection System (LDS) for the reactor water cleanup system (RWCS) area, the high pressure coolant injection (HPCI) equipment room and pipe routing area, and the reactor core isolation cooling (RCIC) equipment room and pipe routing area. The amendment also changed the leakage design basis from 25 gallons per minute (gpm) to 35 gpm for the turbine enclosure main steam line (MSL) tunnel temperature isolation setpoint. This amendment was requested by Exelon letter to NRC dated December 6, 2013.

The amendment was effective as of the date of issuance and is required to be implemented within 60 days (i.e., by February 27, 2015).

Due to an unforeseen equipment deficiency associated with calibration of one of the Unit 2 Temperature Indicating Switches, TIS-025-201B, Exelon requests an extension for implementation of License Amendment No. 174 to prior to startup from the LGS Spring 2015 Unit 2 Refueling Outage.

Exigent Circumstances:

The Commission's regulations, 10 CFR 50.91, contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. An exigency is a case where the staff and licensee need to act promptly. In this case, Exelon cannot implement an amendment within the implementation date agreed upon, without potentially placing the plant in an unnecessary risk situation, and therefore a new date must be agreed upon or Exelon will be in violation of its operating license on February 28, 2015. Pursuant to 10 CFR 50.91(a)(6), Exelon is requesting the proposed amendment on an exigent basis.

Under such circumstances, the Commission notifies the public in one of two ways: by issuing a *Federal Register* notice providing an opportunity for hearing and allowing at least two weeks for prior public comments, or by issuing a press release discussing the proposed changes, using local media.

2.0 DETAILED DESCRIPTION

License Amendment No. 174 was issued on December 29, 2014. A plan was developed to implement the setpoint changes required within 60 days. The plan included procedure revisions, resource allocation, and a detailed schedule to perform multiple setpoint changes. Initial work started on January 31, 2015, and on February 1, 2015, an equipment issue (described below) on one of the temperature indicating switches, TIS-025-201B, was identified. On February 6, 2015, after evaluating several repair options, Exelon determined that the on-line repair risk was too high and requested that an extension to the license implementation date be pursued.

Prior to adjusting the trip setpoints, a password must be entered into TIS-025-201B, Steam Leak Detection Temperature Monitor Division 2/B1. The keypad would not respond during entry of the password. It should be noted that the inability to access TIS-025-201B to revise the setpoints does not affect the ability of TIS-025-201B to perform its function with the currently installed setpoints.

TIS-025-201B provides isolation for the HPCI Equipment Room (high temperature and delta temperature), MSIV Outboard Isolation Valve Room (high temperature), Main Steam Tunnel-Turbine Enclosure (high temperature), and HPCI Pipe Routing Area (high temperature). TIS-025-201B also provides the HPCI Equipment Room high temperature alarm. The only setpoints for this instrument affected by the license amendment are HPCI Equipment Room Temperature - High isolation, and HPCI Pipe Routing Area Temperature - High isolation (TS Table 3.3.2-2.4.d and f, respectively).

To repair the keypad, the monitor must be removed from service and de-energized, thereby making the monitor, and corresponding instrument channel, inoperable and requiring entry into Technical Specification 3.3.2, Isolation Actuation Instrumentation, for HPCI and Main Steam.

For the HPCI system, the Limiting Condition for Operation (LCO) requires the instrument channel to be returned to an operable status within 6 hours or verify the affected system isolation valves are closed within the next hour and declare the affected systems inoperable. The HPCI System would enter a 14-day LCO and the on-line Probability Risk Assessment (PRA) risk condition would be changed from Green to Yellow.

For the Main Steam System, the LCO requires the instrument channel to be returned to an operable status within 24 hours or place the inoperable channel in the tripped condition, which would result in a one-half Group I Main Steam Isolation Valve (MSIV) isolation. The LGS Maintenance Instrument & Controls Group has confirmed that during the keypad work a one-half Group I isolation would exist as the TIS-025-201B is de-energized.

With a one-half Group I MSIV isolation present, the possibility of a full Group I isolation is increased. A complete Group I MSIV isolation and closure of the MSIVs would cause a reactor scram. Response would be complicated with the HPCI system concurrently isolated. Isolating the main steam lines at power with the reactor's main heat sink and high pressure coolant injection system unavailable would result in prolonged operation of the Reactor Core Isolation Cooling (RCIC) system for reactor pressure vessel level control. This would also result in heat addition to the primary containment from safety relief valve discharges and the RCIC turbine exhaust.

It is estimated to take approximately four hours to repair the TIS-025-201B keypad. During this time, a one-half Group I MSIV isolation would exist exposing the unit to an increased risk. If the keypad could not be successfully repaired, the TIS-025-201B would need to be replaced, which could extend the repair window by an additional 18 hours (Reference 2). The potential change in repair scope would necessitate isolation of the HPCI system and result in a further increase in plant risk due to the one-half Group I isolation being present for the repair.

With regards to the proposed license change, the implementation period for LGS Amendment No. 174 to the facility operating license states:

“...3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days...”

Exelon requests that implementation requirements of LGS License Amendment No.174 to the facility operating license be amended as follows:

“...3. This license amendment is effective as of its date of issuance, and shall be implemented prior to startup from the Spring 2015 Unit 2 Refueling Outage ...”

3.0 TECHNICAL EVALUATION

The request for extending the implementation period is not a technical or safety issue. The proposed change is purely an administrative change. In issuing an amendment to an operating license, the NRC staff states when the amendment is effective and when the amendment must be implemented. These dates are given in Enclosure 1 of the amendment and are part of the operating license. As such, a change to the implementation date is a change to the operating license for the plant. Although there are no regulatory requirements on the implementation date specified in an amendment, the licensee is required by the operating license to fully implement the amendment by the date specified (i.e., by a date no later than that specified) or be in violation of its operating license.

In addition, the existing setpoint for the HPCI Pipe Routing Area Temperature detector (contained in the HPCI Equipment Room) is 175°F which is conservative compared to the approved new setpoint of 180°F. The current setpoint for the HPCI Equipment Room is 225°F, which is less conservative compared to the new approved setpoint of 180°F; however, the existing setpoint of 225°F remains acceptable as per the original LGS steam leak detection design basis. Furthermore, the HPCI Equipment Room is also protected by a high differential temperature isolation signal, for which the setpoint is not changing. Therefore, the HPCI Equipment Room is still protected by redundant devices prior to implementing the approved setpoint change.

4.0 REGULATORY EVALUATION

4.1 APPLICABLE REGULATORY REQUIREMENTS/CRITERIA

The proposed change has been evaluated to determine whether applicable regulations and requirements continue to be met. Exelon has determined that the proposed change does not require any exemptions or relief from regulatory requirements other than the license. The following applicable regulations and regulatory requirements were reviewed in making this determination:

Codes:

10 CFR 50.90, Application for amendment of license, construction permit, or early site permit
10 CFR 50.91, Notice for public comment; State consultation
10 CFR 50.92, Issuance of amendment

4.2 PRECEDENT

Three similarly related license amendments involving extensions to license amendment implementation due dates were approved in 2004 and 2000, and are summarized below:

1. Sequoyah Nuclear Plant Unit 1 (SQN) – Issuance of Emergency Amendment to Extend Implementation Period for License Amendment No. 294 (TAC NO. MC5041), dated November 9, 2004. The license amendment extended the implementation period for Technical Specification Change 00-14 to May 15, 2005, from the original implementation period of the completion of the 2004 Cycle 13 refueling outage. There were no actual changes to the Technical Specifications. Tennessee Valley Authority requested the change in the implementation date on an emergency basis based on unforeseen difficulties associated with the calibration of the low-temperature overpressure protection system setpoints. (ML043130006)
2. Susquehanna Steam Electric Station, Units 1 and 2 – Issuance of Amendment RE: Change of Implementation Date for Amendment No. 184 for Unit 1 and Amendment No. 158 for Unit 2 (TAC NOS. MA8479 AND MA8480), dated June 2, 2000. These amendments extended the implementation date for Amendment No. 184 for Unit 1 and Amendment No. 158 for Unit 2 from 30 days following startup from the Unit 1 Spring 2000 refueling outage to no later than November 1, 2001. Amendments 184 and 158 approved TS changes to incorporate requirements related to oscillation power range monitoring (OPRM) instrumentation. The implementation date extension was needed to provide time to address continuing hardware and software deficiencies with the OPRM system. (ML003720249)
3. Fort Calhoun Station, Unit No.1 – Issuance of Amendment (TAC No. MC1949), dated February 13, 2004. The amendment changed the implementation date from 30 days to 120 days for Amendment No. 224 issued on January 16, 2004, that approved a measurement uncertainty uprate to increase the licensed rated power by 1.6 percent from 1500 megawatts thermal (MWt) to 1524 MWt. (ML040490383)

4.3 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:

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

Response: No.

The proposed exigent license amendment extends the implementation period specified in Limerick Generating Station (LGS) Unit 2 License Amendment No.174 from 60 days

to prior to startup from the Spring 2015 Unit 2 Refueling Outage. The extension will allow Exelon to complete the necessary calibrations to the affected Temperature Indicating Switch during less risk significant operating conditions (i.e., refueling outage). In addition, the current setpoint for the HPCI Pipe Routing Area Temperature detector (contained in the HPCI Equipment Room) is 175°F which is conservative compared to the approved new setpoint of 180°F. The current setpoint for the HPCI Equipment Room is 225°F, which is less conservative compared to the new approved setpoint of 180°F; however, the existing setpoint of 225°F remains acceptable as per the original LGS steam leak detection design basis. Furthermore, the HPCI Equipment Room is also protected by a high differential temperature isolation signal, for which the setpoint is not changing. Therefore, the HPCI Equipment Room is still protected by redundant devices prior to implementing the approved setpoint change.

The proposed amendment is purely administrative and has no technical or safety aspects.

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

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

Response: No.

The proposed exigent license amendment extends the implementation period specified in LGS License Amendment No. 174 from 60 days to prior to startup from the Spring 2015 Unit 2 Refueling Outage. The proposed amendment is purely administrative and has no technical or safety aspects.

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

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

The proposed exigent license amendment extends the implementation period specified in LGS License Amendment No. 174 from 60 days to prior to startup from the Spring 2015 Unit 2 Refueling Outage. The proposed amendment is purely administrative and has no technical or safety aspects.

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 does not involve a 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.

4.4 CONCLUSIONS

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.

5.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, 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 effluent 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.

6.0 REFERENCES

1. Limerick Generating Station, Units 1 and 2 – Issuance of Amendments Re: Leak Detection System Setpoint and Allowable Value Changes (TAC Nos. MF3198 and MF3199), dated December 29, 2014. (ML14324A808)
2. Issue Report 1123479, TIS-025-101D Displays Not As Expected Following PM, dated October 7, 2010.