



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 25, 2015

Mr. Bryan C. Hanson
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LIMERICK GENERATING STATION, UNIT 2 - ISSUANCE OF EXIGENT
AMENDMENT RE: EXTEND IMPLEMENTATION PERIOD FOR AMENDMENT
NO. 174 - LEAK DETECTION SYSTEM SETPOINT AND ALLOWABLE VALUE
CHANGES (TAC NO. MF5695)

Dear Mr. Hanson:

The Commission has issued the enclosed Amendment No. 177 to Renewed Facility Operating License No. NPF-85 for Limerick Generating Station (LGS), Unit 2. This amendment is in response to your application dated February 12, 2015.

The amendment extends the implementation period for Amendment No. 174, "Leak Detection System Setpoint and Allowable Value Changes," which was issued on December 29, 2014. Amendment No. 174 was effective as of the date of issuance (i.e., on December 29, 2014) and was required to be implemented within 60 days (i.e., by February 27, 2015). As discussed in your application, the implementation period of 60 days in Amendment No. 174 could not be met due to unforeseen difficulties associated with calibration of a temperature indicating switch. Amendment No. 177 extends the implementation period for Amendment No. 174 from 60 days to prior to startup from the spring 2015 refueling outage.

A copy of our safety evaluation (SE) is also enclosed. The SE describes the exigent circumstances under which the amendment was issued and provides a final no significant hazards consideration determination. The Notice of Issuance, addressing the final no significant hazards determination and opportunity for a hearing, will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "RBE", written over a white background.

Richard B. Ennis, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-353

Enclosures:

1. Amendment No. 177 to Renewed NPF-85
2. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-353

LIMERICK GENERATING STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 177
Renewed License No. NPF-85

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (the licensee), dated February 12, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, Renewed Facility Operating License No. NPF-85 is amended to extend the implementation date of Amendment No. 174, issued on December 29, 2014, to prior to startup from the Spring 2015 Unit 2 Refueling Outage.
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.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Douglas A. Broaddus". The signature is fluid and cursive, with a large initial "D" and a long horizontal stroke at the end.

Douglas A. Broaddus, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Date of Issuance: February 25, 2015



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 177

TO RENEWED FACILITY OPERATING LICENSE NO NPF-85

EXELON GENERATION COMPANY, LLC

LIMERICK GENERATING STATION, UNIT 2

DOCKET NO. 50-353

1.0 INTRODUCTION

By application dated February 12, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15043A649), Exelon Generation Company, LLC (Exelon, the licensee), submitted an amendment request for Limerick Generating Station (LGS), Unit 2. The proposed amendment would extend the implementation period for Amendment No. 174, which was issued by the Nuclear Regulatory Commission (NRC or the Commission) staff on December 29, 2014 (ADAMS Accession No. ML14324A808). Amendment No. 174 was effective as of the date of issuance (i.e., on December 29, 2014) and was required to be implemented within 60 days (i.e., by February 27, 2015). Due to unforeseen difficulties associated with calibration of a temperature indicating switch, Exelon requested that the implementation period be extended. Specifically, Exelon requested that implementation not be required until prior to startup from the spring 2015 refueling outage for LGS, Unit 2.

Amendment No. 174 revised technical specification (TS) setpoints and allowable values for certain area temperature instrumentation associated with the leak detection system (LDS). The purpose of the LDS is to detect and provide the signals necessary to isolate leakage from the reactor coolant pressure boundary before pre-determined limits are exceeded. The affected TS instrumentation monitor ambient temperature in the reactor water cleanup system area, the high pressure coolant injection equipment room and pipe routing area, and the reactor core isolation cooling equipment room and pipe routing area. The changes made by Amendment No. 174 established new temperature setpoint values such that normal variations in the maximum operating temperatures for the affected plant areas would not result in spurious system isolations.

As discussed in the licensee's application dated February 12, 2015, Exelon requested that the proposed amendment be processed by the NRC on an exigent basis in accordance with the provisions in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.91(a)(6). The NRC's evaluation regarding the exigent circumstances is discussed below in Safety Evaluation (SE) Section 4.0.

2.0 REGULATORY EVALUATION

In issuing an amendment to an operating license, the NRC staff specifies when the amendment is effective and when the amendment must be implemented. Enclosure 2 to the NRC's letter dated December 29, 2014, contained Amendment No. 174 for LGS, Unit 2. The amendment stated, in part, that:

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

There are no specific regulatory requirements regarding the time period for amendment implementation. The NRC staff generally specifies an implementation period consistent with that requested in the licensee's application. For LGS, Unit 2, Amendment No. 174, the 60-day period was requested in Exelon's letter dated December 6, 2013 (ADAMS Accession No. ML13343A024).

Implementation periods, requested by licensees, may vary based on the extent of the physical changes needed to the plant and/or associated documentation that needs to be revised. Sometimes the licensee requests that it be allowed to implement the amendment during the next refueling outage to support changes that the licensee wants to make when the plant is shutdown.

Since the implementation period specified by the NRC in an amendment is considered part of the operating license, the licensee is required 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. Any extension of the implementation period needs prior NRC approval as a license amendment pursuant to 10 CFR 50.90.

3.0 TECHNICAL EVALUATION

As discussed in SE Section 1.0, LGS, Unit 2 Amendment No. 174 was effective as of the date of issuance (i.e., on December 29, 2014) and was required to be implemented within 60 days (i.e., by February 27, 2015). Due to unforeseen difficulties associated with calibration of a temperature indicating switch, Exelon requested that the implementation period be extended. Specifically, Exelon requested that implementation not be required until prior to startup from the spring 2015 refueling outage for LGS, Unit 2.

The problem, associated with the calibration of the temperature indicating switch, involved an inoperable key pad needed to make the associated setpoint changes approved in Amendment No. 174. The changes made by Amendment No. 174 established new temperature setpoint values such that normal variations in the maximum operating temperatures for the affected plant areas would not result in spurious system isolations. The inability to revise the setpoints, due to the inoperable key pad, does not affect the ability of the temperature indicating switch to perform its design basis intended functions with the currently calibrated setpoints.

The NRC staff finds that the proposed extension of the implementation period for LGS, Unit 2 Amendment No. 174 is purely administrative in nature. The proposed amendment does not involve any physical changes to the plant and does not involve any changes in the operation of

the plant. Operation of the plant with the currently calibrated setpoints (i.e., setpoints prior to approval of Amendment No. 174) does not raise any safety concerns. Based on the above considerations, the NRC staff concludes that the proposed amendment is acceptable.

4.0 EXIGENT CIRCUMSTANCES

4.1 Background

The NRC's regulations contain provisions for issuance of amendments when the usual 30-day public comment period cannot be met. These provisions are applicable under exigent circumstances. Consistent with the requirements in 10 CFR 50.91(a)(6), exigent circumstances exist when: (1) a licensee and the NRC must act quickly; (2) time does not permit the NRC to publish a *Federal Register* notice allowing 30 days for prior public comment; and (3) the NRC determines that the amendment involves no significant hazards consideration. As discussed in the licensee's application dated February 12, 2015, the licensee requested that the proposed amendment be processed by the NRC on an exigent basis.

Under the provisions in 10 CFR 50.91(a)(6), the NRC notifies the public in one of two ways: (1) by issuing a *Federal Register* notice providing an opportunity for hearing and allowing at least 2 weeks from the date of the notice for prior public comments; or (2) by using local media to provide reasonable notice to the public in the area surrounding the licensee's facility. In this case, the NRC used the second approach and published a public notice in a newspaper local to LGS, *The Pottstown Mercury*, on February 15 and February 16, 2015.

4.2 Licensee's Basis for Exigent Circumstances

The licensee is basing exigent circumstances on the following considerations. During implementation of the various setpoint changes associated with Amendment No. 174 for LGS, Unit 2, an unforeseen equipment problem was identified on February 1, 2015. The problem involved an inoperable key pad needed to make the setpoint changes to one temperature indicating switch. To repair the key pad, equipment would need to be deenergized and removed from service. This would result in declaring equipment inoperable, in accordance with the plant TSs. Based on probabilistic risk assessment and operational risk considerations, the plant would be considered in a higher risk configuration under these circumstances. The extension of the implementation period would allow Exelon to complete the necessary calibration to the temperature indicating switch during less risk-significant operating conditions (i.e., while the plant was shutdown during a refueling outage). Without the proposed amendment, the licensee would be in violation of the LGS, Unit 2 operating license if the changes approved in Amendment No. 174 were not implemented by February 27, 2015.

4.3 NRC Staff Conclusion

Based on the above circumstances, the NRC staff finds that the licensee made a timely application for the proposed amendment following identification of the issue. In addition, the NRC staff finds that the licensee could not avoid the exigency with violating the operating license or by putting the plant in a higher risk configuration. Based on these findings, and the determination that the amendment involves no significant hazards consideration, as discussed

in SE Section 6.0, the NRC staff has determined that a valid need exists for issuance of the license amendment using the exigent provisions of 10 CFR 50.91(a)(6).

5.0 PUBLIC COMMENTS

As discussed in SE Section 4.1, the NRC staff published a public notice concerning the proposed amendment, in a newspaper local to LGS, *The Pottstown Mercury*, on February 15 and February 16, 2015. The notice included the NRC staff's proposed no significant hazards consideration determination. The notice also provided an opportunity for public comment until 5:00 pm on February 24, 2015, regarding the staff's proposed no significant hazards consideration determination.

Public comments were received regarding the proposed amendment. Specifically, the Alliance for a Clean Environment (ACE) provided comments in an e-mail dated February 23, 2015 (ADAMS Accession No. ML15054A308).

Consistent with the requirements in 10 CFR 50.91(a)(2)(ii), and as noted above, the NRC staff's public notice solicited comments specifically on the proposed no significant hazards consideration determination. ACE provided comments regarding its objections to NRC's issuance of the proposed amendment. ACE also provided comments pertaining to LGS that were not related to the proposed amendment. Although none of the ACE comments pertained specifically to the NRC staff's proposed no significant hazards consideration determination, the staff has provided responses below to comments that pertain specifically to the proposed amendment.

With regard to the comments that do not pertain to the proposed amendment, the NRC staff notes that to the extent that ACE believes that LGS is operating unsafely, it can request that the Commission institute a proceeding pursuant to 10 CFR 2.206(a) to modify, suspend, or revoke a license, or for any other action as may be proper.

5.1 Public Comment No. 1

ACE provided the following comment:

We are opposed to NRC staff's proposal to amend Limerick's Unit 2 operating license yet again. Amendment No. 174 was just issued on December 29, 2014, only two months after NRC relicensed Limerick.

NRC Response:

The fact that the LGS, Units 1 and 2, licenses were recently renewed has no bearing on whether the licensee requests or the NRC issues an amendment to those licenses. License renewal pursuant to NRC regulations at 10 CFR Part 54 is distinct from the license amendment process pursuant to 10 CFR Part 50. Each licensing action is reviewed by the NRC staff to ensure that there is reasonable assurance the relevant regulatory requirements will be met and that the proposed change is safe.

5.2 Public Comment No. 2

ACE provided the following comment:

It is incomprehensible that Exelon can't comply with the amendment it requested just two months ago. More disturbing is the fact that NRC states that this new amendment request is "due to unforeseen difficulties associated with calibration of a temperature indicating switch" and newly identified problems with an inoperable key pad.

NRC Response:

Amendment No. 174 was issued by the NRC staff about 2 months ago (not requested by Exelon 2 months ago). The licensee explained the circumstances concerning the exigent need for this amendment as described in SE Section 4.2. The NRC staff has determined that a valid need exists for issuance of the license amendment using the exigent provisions of 10 CFR 50.91(a)(6) as described in SE Section 4.3.

5.3 Public Comment No. 3

ACE provided the following comment:

This equipment is essential to the implementation of new [setpoints] and thermal calibrations and is required to be implemented within 60 days of the issuance of Amendment No. 174. (February 27, 2015).

NRC should not allow an amendment to Amendment No. 174 just because Exelon cannot or will not comply with it. Exelon's new amendment request acknowledges inoperable equipment. Inoperable equipment is the reason Amendment No.174 mandates shutdown of Unit 2 as of February 27, 2015 or be in violation of its LGS Unit 2 operating license unless it shuts down.

NRC Response:

As discussed in SE Section 3.0, the NRC staff finds that the proposed extension of the implementation period for LGS, Unit 2 Amendment No. 174 is purely administrative in nature. The proposed amendment does not involve any physical changes to the plant and does not involve any changes in the operation of the plant.

The inability to revise the setpoints, due to the inoperable key pad, does not affect the ability of the temperature indicating switch to perform its design basis intended functions with the currently calibrated setpoints. Operation of the plant with the currently calibrated setpoints (i.e., setpoints prior to approval of Amendment No. 174) does not raise any safety concerns.

Also, inoperability of the key pad does not impact the operability of the temperature indicating switch. The temperature indicating switch is still operable in accordance with the technical specifications. As such, there is no technical specification requirement for a plant shutdown due to inoperability of the key pad.

6.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The NRC's regulations in 10 CFR 50.92 state that the NRC may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility, in accordance with the amendment, would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

As required by 10 CFR 50.91(a), the licensee, in its application dated February 12, 2015, provided its analysis of the issue of no significant hazards consideration, using the standards in 10 CFR 50.92. The NRC staff's evaluation of the issue of no significant hazards consideration is presented below.

First Standard

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

Response: No.

The proposed amendment extends the implementation period specified in LGS, Unit 2 Amendment No.174 from 60 days to prior to startup from the spring 2015 Unit 2 refueling outage. As such, the proposed amendment is purely administrative in nature. No physical changes to the plant will occur as a result of the proposed amendment. In addition, the proposed amendment will not change the operation of any plant structure, system, or component (SSC). Therefore, the proposed amendment does not have any effect on the ability of any SSC from performing its intended design function and does not have any impact on the ability of any SSC from preventing or mitigating any previously evaluated accident.

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

Second Standard

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

Response: No.

The proposed amendment is purely administrative in nature. The proposed amendment does not involve any physical changes to the plant and does not involve any changes in the operation of the plant. Therefore, the proposed amendment would not introduce any new accident initiators, nor would it have any effect on the capability of any plant SSC to perform its intended safety function.

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

Third Standard

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

Response: No.

Margin of safety is related to the confidence in the ability of the fission product barriers (i.e., fuel cladding, reactor coolant pressure boundary, and containment) to limit the level of radiation dose to the public. The proposed amendment is purely administrative in nature. The proposed amendment does not involve any physical changes to the plant and does not involve any changes in the operation of the plant. Therefore, the proposed amendment does not have any effect on the capability of the fission product barriers to limit the level of radiation dose to the public.

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

Conclusion

Based on the above evaluation, the NRC staff concludes that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff has made a final determination that no significant hazards consideration is involved for the proposed amendment and that the amendment should be issued as allowed by the criteria contained in 10 CFR 50.91.

7.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendment. The State official had no comments.

8.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has made a final determination that no significant hazards consideration is involved for the proposed amendment as discussed above in SE Section 6.0. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

9.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that 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.

Principal Contributor: R. Ennis

Date: February 25, 2015

February 25, 2015

Mr. Bryan C. Hanson
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LIMERICK GENERATING STATION, UNIT 2 - ISSUANCE OF EXIGENT AMENDMENT RE: EXTEND IMPLEMENTATION PERIOD FOR AMENDMENT NO. 174 - LEAK DETECTION SYSTEM SETPOINT AND ALLOWABLE VALUE CHANGES (TAC NO. MF5695)

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Sincerely,

/RA/

Richard B. Ennis, Senior Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
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Docket No. 50-353

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ADAMS Accession No: ML15049A084

***via e-mail**

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