

August 30, 2002

Mr. John L. Skolds, President
and Chief Nuclear Officer
Exelon Nuclear
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

SUBJECT: LIMERICK GENERATING STATION, UNITS 1 AND 2 - ISSUANCE OF
AMENDMENT RE: REVISION OF REACTOR WATER CLEANUP SYSTEM
(RWCS) STEAM LEAK DETECTION INSTRUMENTATION SETPOINTS
(TAC NOS. MB4074 and MB4075)

Dear Mr. Skolds:

The Commission has issued the enclosed Amendment No. 161 to Facility Operating License No. NPF-39 and Amendment No. 123 to Facility Operating License No. NPF-85 for the Limerick Generating Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated February 15, 2002, as supplemented by letter dated June 25, 2002.

These amendments revise the reactor water cleanup system steam leak detection temperature isolation actuation instrumentation setpoints contained in Table 3.3.2-2 concerning items 3.b and 3.c for RWCS area temperature - high and RWCS area ventilation differential temperature - high.

A copy of our safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA by JBoska for/

Christopher Gratton, Sr. Project Manager, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-352 and 50-353

Enclosures: 1. Amendment No. 161 to
License No. NPF-39
2. Amendment No. 123 to
License No. NPF-85
3. Safety Evaluation

cc w/encls: See next page

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NAME	RCaruso	RHoefling	JZimmerman		
DATE	8/12/02	8/20/02	8/29/02		

Limerick Generating Station, Units 1 & 2

cc:

Vice President, General Counsel and
Secretary
Exelon Generation Company, LLC
300 Exelon Way
Kennett Square, PA 19348

Manager Licensing-Limerick and Peach
Bottom
Exelon Generation Company, LLC
Nuclear Group Headquarters
Correspondence Control
P.O. Box 160
Kennett Square, PA 19348

Site Vice President
Limerick Generating Station
Exelon Generation Company, LLC
P.O. Box 2300
Sanatoga, PA 19464

Plant Manager
Limerick Generating Station
Exelon Generation Company, LLC
P.O. Box 2300
Sanatoga, PA 19464

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
Limerick Generating Station
P.O. Box 596
Pottstown, PA 19464

Chairman
Board of Supervisors
of Limerick Township
646 West Ridge Pike
Linfield, PA 19468

Chief-Division of Nuclear Safety
PA Dept. of Environmental Resources
P.O. Box 8469
Harrisburg, PA 17105-8469

Library
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Dr. Judith Johnsrud
National Energy Committee
Sierra Club
433 Orlando Avenue
State College, PA 16803

Vice President, Licensing and Regulatory
Affairs
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Director-Licensing
Mid-Atlantic Regional Operating Group
Exelon Generation Company, LLC
Nuclear Group Headquarters
Correspondence Control
P. O. Box 160
Kennett Square, PA 19348

Correspondence Control Desk
Exelon Generation Company, LLC
200 Exelon Way, KSA 1-N-1
Kennett Square, PA 19348

Chief Operating Officer
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Senior Vice President, Nuclear Services
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

Limerick Generating Station, Units 1 & 2

cc:

Vice President, Mid-Atlantic Operations Support
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Senior Vice President
Mid-Atlantic Regional Operating Group
Exelon Generation Company, LLC
200 Exelon Way, KSA 3-N
Kennett Square, PA 19348

Regulatory Assurance Manager
Limerick Generating Station
Exelon Generation Company, LLC
P.O. Box 2300
Sanatoga, PA 19464

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-352

LIMERICK GENERATING STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 161
License No. NPF-39

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Exelon Generation Company, LLC (the licensee) dated February 15, 2002, as supplemented by letter dated June 25, 2002, 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-39 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 161, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by VNerses/

Jacob I. Zimmerman, Acting Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the
Technical Specifications

Date of Issuance: August 30, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 161

FACILITY OPERATING LICENSE NO. NPF-39

DOCKET NO. 50-352

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove

3/4 3-19

Insert

3/4 3-19

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-353

LIMERICK GENERATING STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 123
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 15, 2002, as supplemented by letter dated June 25, 2002, 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, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. NPF-85 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 123, are hereby incorporated in the license. Exelon Generation Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA by VNurses for/

Jacob I. Zimmerman, Acting Chief, Section 2
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the
Technical Specifications

Date of Issuance: August 30, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 123

FACILITY OPERATING LICENSE NO. NPF-85

DOCKET NO. 50-353

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove

3/4 3-19

Insert

3/4 3-19

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 161 AND 123 TO FACILITY OPERATING
LICENSE NOS. NPF-39 AND NPF-85
EXELON GENERATION COMPANY, LLC
LIMERICK GENERATING STATION, UNITS 1 AND 2
DOCKET NOS. 50-352 AND 50-353

1.0 INTRODUCTION

By application dated February 15, 2002 (Reference 1), as supplemented by letter dated June 25, 2002 (Reference 2), Exelon Generation Company, LLC (the licensee), requested changes to the Technical Specifications (TSs) for the Limerick Generating Station (LGS), Unit 1 and Unit 2. The proposed change would revise the reactor water cleanup system (RWCS) steam leak detection temperature isolation actuation instrumentation setpoints contained in Table 3.3.2-2 concerning items 3.b and 3.c for RWCS area temperature - high and RWCS area ventilation differential temperature - high. The supplement dated June 25, 2002, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on June 11, 2002 (67 FR 40024).

2.0 EVALUATION

RWCS equipment spaces located outside the primary containment are provided with isolation instrumentation to detect reactor coolant piping breaks. Several means of break detection are employed, one of which is the compartment high differential temperature function. This instrumentation system senses the ventilation supply air temperature (cold leg) and exhaust air temperature (hot leg) to determine if a high differential temperature exists, an indication of steam discharge into the compartment airflow. The RWCS compartment high temperature isolation function is not needed for reactor protection but is provided as a radiological protection feature. Typically, the high differential temperature instruments are designed, and setpoints selected, to be capable of detecting the smallest possible leak without incurring spurious actuation due to the ventilation system and other transients. For RWCS lines in RWCS compartments, a 25-gpm leak has historically been considered an appropriate heat source for use in analyses to determine the temperature difference to be sensed. This specific leakage detection capability is specified in General Electric's (GE) design specifications and accepted by the Nuclear Regulatory Commission (NRC) staff (Reference 3) as a licensing basis requirement for LGS and similar facilities.

The licensee stated that their current setpoint calculations are based on their system design calculations which are very conservative. Additionally, by their letter dated June 25, 2002, the

licensee informed the NRC staff that their setpoint calculation methodology conforms to the approved GE Topical Report NEDC-31336. The system design calculations have used the RWCS regenerative heat exchanger room size for the RWCS pump rooms. The RWCS regenerative heat exchanger room is approximately three times the size of the RWCS pump room. Therefore, large design margins exist in the current setpoints and reduction of these excessive margins will reduce the probability of unnecessary challenges on the primary containment and reactor vessel isolation control system (PCRVICES) and the RWCS primary containment isolation valves, and will decrease the likelihood of primary coolant chemistry transients due to RWCS shutdowns. Further, the proposed increase in the setpoints and allowable values will decrease the frequency of unnecessary operator entries into the secondary containment.

In order to remain in compliance with the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.49, the licensee analyzed the higher ambient temperatures in the RWCS pump rooms during normal operation to determine if the affected equipment will remain within the limitations of the environmental qualification program. Qualification limits are needed to permit verification that items are qualified for their application and meet their specified performance requirements when subjected to conditions predicted to be present when they must perform a safety function up to the end of the qualified life. The licensee stated that the proposed TS amendment would allow the plant to operate at higher ambient temperatures in the RWCS pump rooms during normal operation. Engineering calculations have demonstrated that the RWCS isolation design temperature requirements are maintained with a normal operating air temperature of ≤ 155 °F and a normal operating differential air temperature of ≤ 52 °F without any adverse impact on the ability of safety-related equipment to perform their design functions. Therefore, the affected equipment will remain within the limitations of the Environmental Qualification program.

Based on the foregoing evaluation, the NRC staff finds that the proposed new setpoints will be consistent with the leakage detection system design basis and radiological dose analysis assumptions, and therefore, are acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change 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 amendments involve 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 previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (67 FR 40024). Accordingly, the amendments meet 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 amendments.

6.0 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) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

7.0 REFERENCES

1. Letter from Michael P. Gallagher to USNRC, "License Amendment Request 01-00129, Reactor Water Cleanup System Steam Leak Detection Instrumentation Setpoints," February 15, 2002.
2. Letter from Michael P. Gallagher to USNRC, "Response to the Request for Additional Information Regarding Limerick Generating Station's Instrument Setpoint Methodology (Licence Amendment Request 01-00129)," June 25, 2002.
3. General Electric/Nuclear Regulatory Commission Engineering Evaluation Report AEOD [Office for Analysis and Evaluation of Operational Data] /E075, March 1987.

Principal Contributors: S. Wall, S. Mazumdar, P. Shemanski, G. Thomas

Date: August 30, 2002