

January 24, 2007

Mr. Christopher M. Crane
President and Chief Nuclear Officer
Exelon Generation Company, LLC
LaSalle County Station
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNIT 2, ISSUANCE OF AMENDMENT RE:
PRIMARY CONTAINMENT LEAKAGE TESTING PROGRAM
(TAC NO. MD1298)

Dear Mr. Crane:

The Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment No.166 to Facility Operating License No. NPF-18 for the LaSalle County Station (LaSalle), Unit 2. The amendment is in response to your application dated April 21, 2006.

The amendment revises Technical Specification (TS) 5.5.13, "Primary Containment Leakage Testing Program," to reflect a one-time extension of the LaSalle, Unit 2 primary containment Type A integrated leak rate test (ILRT) from the current requirement of "no later than December 7, 2008," to "prior to startup following L2R12 [LaSalle, Unit 2 refueling outage 12]."

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Stephen P. Sands, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-374

Enclosures:

1. Amendment No. 166 to NPF-18
2. Safety Evaluation

cc w/encls: See next page

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 166
License No. NPF-18

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment filed by the Exelon Generation Company, LLC (the licensee), dated April 21, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 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 set forth in 10 CFR Chapter I;
 - 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 enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-18 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 166, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Michael L. Marshall, Jr., Chief
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications and Facility Operating License

Date of Issuance: January 24, 2007

ATTACHMENT TO LICENSE AMENDMENT NO. 166

FACILITY OPERATING LICENSE NO. NPF-18

DOCKET NO. 50-374

Replace the following pages of the Facility Operating Licenses and Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

Unit 2 License Page 3
5.5-13

Insert

Unit 2 License Page 3
5.5-13

- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70 possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of LaSalle County Station Units 1 and 2.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of full power (3489 megawatts thermal). Items in Attachment 1 shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 166, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Conduct of Work Activities During Fuel Load and Initial Startup

The licensee shall review by committee all Unit 2 Preoperational Testing and System Demonstration activities performed concurrently with Unit 2 initial fuel loading or with the Unit 2 Startup Test Program to assure that the activity will not affect the safe performance of the Unit 2 fuel loading or the portion of the Unit 2 Startup Program being performed. The review shall address, as a minimum, system interaction, span of control, staffing, security and health physics, with respect to performance of the activity concurrently with the Unit 2 fuel loading or the portion of the Unit 2 Startup Program being performed. The committee for the review shall be composed of at least three members, knowledgeable in the above areas, and who meet the qualifications for professional-technical personnel specified by section 4.4 of ANSI N18.7-1971. At least one of these three shall be a senior member of the Assistant Superintendent of Operation's staff.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 166 TO FACILITY OPERATING LICENSE NO. NPF-18

EXELON GENERATION COMPANY, LLC

LASALLE COUNTY STATION, UNIT 2

DOCKET NO. 50-374

1.0 INTRODUCTION

By letter to the Nuclear Regulatory Commission (NRC, the Commission) dated April 21, 2006 (Agencywide Documents Access and Management System Accession Number ML061740421), Exelon Generation Company, LLC (the licensee), requested changes to the technical specifications (TSs) for LaSalle County Station (LaSalle), Unit 2. The proposed changes would revise TS 5.5.13, "Primary Containment Leakage Testing Program," to reflect a one-time extension of the LaSalle, Unit 2 primary containment Type A integrated leak rate test (ILRT) from the current requirement of "no later than December 7, 2008," to "prior to startup following L2R12 [LaSalle, Unit 2 refueling outage 12]."

2.0 REGULATORY EVALUATION

The NRC staff finds that the licensee, in Attachment 1 of its April 21, 2006, submittal, identified the applicable regulatory requirements. The regulatory requirements for which the NRC staff based its acceptance are provided below.

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Appendix J, Option B requires that a Type A test be conducted at a periodic interval based on historical performance of the overall containment system. TS 5.5.13 requires that leakage rate testing be performed as required by 10 CFR Part 50, Appendix J, Option B, as modified by approved exemptions, and in accordance with the guidelines contained in Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995, with two exceptions (one of which is pertinent to the current request and is discussed in the next paragraph). This RG endorses, with certain exceptions, Nuclear Energy Institute (NEI) report NEI 94-01, Revision 0, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," dated July 26, 1995.

The Type A test is an overall (integrated) leakage rate test of the containment structure. NEI 94-01 specifies an initial test interval of 48 months, but allows an extended interval of 10 years, based upon two consecutive successful tests. There is also a provision for extending the test interval an additional 15 months in certain circumstances. The two most recent Type A tests at LaSalle have been successful, so the current interval requirement would normally be 10 years. However, by letter dated October 24, 2002 (ADAMS Accession Number ML023040488), as supplemented on June 20, 2003 (ADAMS Accession Number

ML031740072), the licensee requested a one-time extension of the test interval to 15 years. On November 19, 2003 (ADAMS Accession Number ML03301008), the NRC staff granted this request via License Amendment No. 148.

The licensee is requesting a proposed change to TS 5.5.13 which would alter their exception from the guidelines of RG 1.163 and NEI 94-01, by adding approximately three more months to the 5-year extension already in place, for a total interval of approximately 15 years and 3 months. Specifically, the exception states that the first Type A test performed after the December 8, 1993, Type A test shall be prior to startup following L2R12. L2R12 is scheduled to take place in March 2009.

The local leakage rate tests (URI) (Type B and Type C tests), including their schedules, are not affected by this license amendment request.

3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendment request which are described in Attachments 1 and 4 of the licensee's submittal. The detailed evaluation below will support the conclusion 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

3.1 Inservice Inspection for Primary Containment Integrity

LaSalle, Unit 2 is a General Electric Boiling Water Reactor/5 design, with a Mark II primary containment. The containment vessel consists of a prestressed concrete containment with a continuous and leak-tight steel liner attached to the cylindrical, cone-shaped portion, and floor liner plate on the top of the foundation mat. The design of the containment incorporates a cone-shaped drywell positioned above an 86.5-foot diameter cylindrical suppression chamber. The containment vessel is penetrated by access openings, process piping, and electrical conduit. The integrity of the penetrations is verified through Type B and Type C local leak rate tests (LLRT) as required by 10 CFR Part 50, Appendix J, and the overall integrity of the containment vessel is verified by an integrated leak rate test (ILRT). These tests are performed to verify the leak-tight characteristics of the containment vessel at the design-basis accident pressure.

On November 19, 2003, the NRC approved a one-time extension of the containment ILRT from a 10-year test interval to a 15-year interval for LaSalle, Unit 2. This test interval increase was justified by the primary containment leakage testing program and the inservice inspection (ISI) program established by the licensee. The NRC staff's review of the application is documented in the safety evaluation (SE) prepared for License Amendment No. 148.

By application dated April 21, 2006, the licensee requested changes to TS 5.5.13, to reflect a one-time extension of the primary containment Type A test interval for an additional 3 months beyond the previously amended 15 years to coincide with L2R12. Because the leak rate testing requirements (ILRT and LLRTs) of Option B of 10 CFR Part 50, Appendix J, and the

containment ISI requirements mandated by 10 CFR 50.55a, "Codes and standards," complement each other in ensuring the leak-tightness and structural integrity of the containment, the NRC staff's review of the application for License Amendment No. 148 concentrated on the ISI program. Since the test interval extension requested for this application is relatively small, the same general methodology is used in this evaluation.

Although Section 9.0 of NEI 94-01 allows an additional 15-month extension to accommodate refueling schedules, the November 19, 2003, license amendment required the licensee to perform the ILRT before December 8, 2008. Based on the previous NRC staff evaluation and approval of License Amendment No. 148, the proposed change in the test interval is not considered significant from the standpoint of ISI. This additional extension will not affect the test program approved on November 19, 2003. Therefore, the information provided in the SE for License Amendment No. 148 and the NRC staff conclusions remain valid.

3.2 Probabilistic Risk Assessment Evaluation

In License Amendment No. 148, the NRC approved a one-time extension of the containment ILRT interval from 10 to 15 years for LaSalle, Unit 2. This test interval extension was supported by a licensee risk assessment. The NRC staff's review of the licensee's risk assessment was documented in the SE for the license amendment, and concluded that the combined risk impact of the test interval extensions, in terms of total integrated plant risk, large early release frequency (LERF), and conditional containment failure probability, is small and supportive of the change.

By letter dated April 21, 2006, the licensee requested that TS 5.5.13 regarding the primary containment leakage rate testing program be amended to effectively allow a one-time extension of the ILRT interval from 15 years to approximately 15 years plus 3 months for LaSalle, Unit 2. The licensee performed a risk assessment of the impact of extending the ILRT test frequency from the original three tests in 10 years to one test in 15 years plus 15 months, and reported the risk results in the April 21, 2006, application for license amendment (the frequency of one test in 15 years plus 15 months was used to bound the impact of the requested extension to 15 years plus 3 months). The risk assessment is based on the same methodology, input, and assumptions used to support License Amendment No. 148, with the exception of the revised test interval and the use of an updated version of the plant-specific probabilistic risk assessment.

Based on the analyses provided by the licensee, the risk impacts and risk comparisons for the proposed change are essentially unchanged from those reported in the November 19, 2003, SE, and the NRC staff's conclusions remain valid. Specifically, the increase in the total integrated plant risk is small and supportive of the proposed change, the increase in the test interval results in only a small change in LERF consistent with the acceptance guidelines of RG 1.174, and the defense-in-depth philosophy is maintained based on the small magnitude of the change in the conditional containment failure probability.

Based on these conclusions, the NRC staff finds that the increase in predicted risk due to the proposed change is within the acceptance guidelines while maintaining the defense-in-depth philosophy of RG 1.174 and, therefore, is acceptable.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes requirements with respect to the installation or use of the facility's components 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 previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (71 FR 32605; June 6, 2006). Accordingly, the amendment 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 amendment.

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.

Based on the foregoing evaluation, the NRC staff finds that the interval until the next containment ILRT at LaSalle Unit 2 may be extended to 15 years plus 3 months, and that the proposed change to TS Section 5.5.13 is acceptable.

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Date: January 24, 2007