

December 3, 2002

Mr. John L. Skolds, President  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: LASALLE COUNTY STATION, UNITS 1 AND 2 - ISSUANCE OF  
AMENDMENTS TO EXTEND THE USE OF PRESSURE AND TEMPERATURE  
LIMIT CURVES (TAC NOS. MB5657 AND MB5658)

Dear Mr. Skolds:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 156 to Facility Operating License No. NPF-11 and Amendment No. 142 to Facility Operating License No. NPF-18 for the LaSalle County Station, Units 1 and 2, respectively. The amendments are in response to your application dated July 19, 2002, as supplemented by letters dated October 21 and November 8, 2002.

The amendments extend the use of the current pressure and temperature (P/T) limit curves in Technical Specification (TS) 3.4.11, "RCS Pressure and Temperature (P/T) Limits," until December 15, 2004. The change will allow sufficient time for the incorporation of the General Electric Topical Report NEDC-32983P, "General Electric Methodology for Reactor Pressure Vessel Fast Neutron Flux Evaluation," methodology into the P/T curves in TS 3.4.11.

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/

William A. Macon, Jr., Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-373, 50-374

Enclosures: 1. Amendment No. 156 to NPF-11  
2. Amendment No. 142 to NPF-18  
3. Safety Evaluation

cc w/encls: See next page

LaSalle County Station Units 1 and 2

cc:

Site Vice President - LaSalle  
Exelon Generation Company, LLC  
2601 North 21st Road  
Marseilles, IL 61341-9757

LaSalle County Station Plant Manager  
Exelon Generation Company, LLC  
2601 North 21st Road  
Marseilles, IL 61341-9757

Regulatory Assurance Manager - LaSalle  
Exelon Generation Company, LLC  
2601 North 21st Road  
Marseilles, IL 61341-9757

U.S. Nuclear Regulatory Commission  
LaSalle Resident Inspectors Office  
2605 North 21st Road  
Marseilles, IL 61341-9756

Phillip P. Steptoe, Esquire  
Sidley and Austin  
One First National Plaza  
Chicago, IL 60603

Assistant Attorney General  
100 W. Randolph St. Suite 12  
Chicago, IL 60601

Chairman  
LaSalle County Board  
707 Etna Road  
Ottawa, IL 61350

Attorney General  
500 S. Second Street  
Springfield, IL 62701

Chairman  
Illinois Commerce Commission  
527 E. Capitol Avenue, Leland Building  
Springfield, IL 62706

Robert Cushing, Chief, Public Utilities Division  
Illinois Attorney General's Office  
100 W. Randolph Street  
Chicago, IL 60601

Regional Administrator  
U.S. NRC, Region III  
801 Warrenville Road  
Lisle, IL 60532-4351

Illinois Department of Nuclear Safety  
Office of Nuclear Facility Safety  
1035 Outer Park Drive  
Springfield, IL 62704

Document Control Desk-Licensing  
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

Vice President  
Mid-West Operations Support  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Senior Vice President  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

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

Director - Licensing  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Senior Counsel, Nuclear  
Mid-West Regional Operating Group  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

Manager - Licensing -Clinton and LaSalle  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

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The amendments extend the use of the current pressure and temperature (P/T) limit curves in Technical Specification (TS) 3.4.11, "RCS Pressure and Temperature (P/T) Limits," until December 15, 2004. The change will allow sufficient time for the incorporation of the General Electric Topical Report NEDC-32983P, "General Electric Methodology for Reactor Pressure Vessel Fast Neutron Flux Evaluation," methodology into the P/T curves in TS 3.4.11.

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William A. Macon, Jr., Project Manager, Section 2  
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Docket Nos. 50-373, 50-374

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- 3. Safety Evaluation

cc w/encls: See next page

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ADAMS Accession Number: ML022520116 TS: ML023440216

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NAME	WMacon, Jr.	CRosenberg	FAkstulewicz	DGauch	LRaghavan for AMendiola
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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-373

LASALLE COUNTY STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 156  
License No. NPF-11

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 July 19, 2002, as supplemented by letters dated October 21 and November 8, 2002, 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-11 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. 156, 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 until December 15, 2004, and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA by LRaghavan for/*

Anthony J. Mendiola, Chief, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 3, 2002

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-374

LASALLE COUNTY STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 142  
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 July 19, 2002, as supplemented by letters dated October 21 and November 8, 2002, 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-11 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. 142, 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 until December 15, 2004, and shall be implemented within 30 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA by LRaghavan for/*

Anthony J. Mendiola, Chief, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: December 3, 2002



ATTACHMENT TO LICENSE AMENDMENT NOS. 156 & 142

FACILITY OPERATING LICENSE NO. NPF-11 AND NPF-18

DOCKET NOS. 50-373 AND 50-374

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

Remove Pages

3.4.11-6  
3.4.11-7  
3.4.11-8  
3.4.11-9  
3.4.11-10  
3.4.11-11

Insert Pages

3.4.11-6  
3.4.11-7  
3.4.11-8  
3.4.11-9  
3.4.11-10  
3.4.11-11

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 156 TO FACILITY OPERATING LICENSE NO. NPF-11  
AND AMENDMENT NO. 142 TO FACILITY OPERATING LICENSE NO. NPF-18  
EXELON GENERATION COMPANY, LLC  
LASALLE COUNTY STATION, UNITS 1 AND 2  
DOCKET NOS. 50-373 AND 50-374

## 1.0 INTRODUCTION

By application dated July 19, 2002, as supplemented by letters dated October 21 and November 8, 2002, Exelon Generation Company (Exelon, the licensee) requested changes to the Technical Specifications (TS) for the LaSalle County Station, Units 1 and 2. The supplements dated October 21, 2002, and November 8, 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 October 30, 2002 (67 FR 66170).

The proposed change would extend the use of the current pressure and temperature (P/T) limit curves in TS 3.4.11, "RCS Pressure and Temperature (P/T) Limits," until December 15, 2004. The proposed change will allow sufficient time for the incorporation of the results of the General Electric Topical Report NEDC-32983P, "General Electric Methodology for Reactor Pressure Vessel Fast Neutron Flux Evaluation," methodology into the P/T curves in TS 3.4.11. The staff previously approved the current interim P/T limits based on estimated conservatism at the time of their applicability. The original limits were calculated for 32 effective full power years (EFPY); however, the methodology used was not acceptable to the staff. The current interim limits are valid for about 16 EFPY and their approval was based on a factor of 2 conservatism in the period of validity. The staff approved the current interim limits to give the licensee time to use a staff approved methodology to recalculate the peak vessel fluence to the end of the current license.

## 2.0 REGULATORY EVALUATION

The staff finds that the licensee in Section 4.0 of Attachment 2 of its October 21, 2002, submittal identified the applicable regulatory requirements. The regulatory requirements for which the staff based its acceptance are 10 CFR 50.36(c)(2)(ii)(B), "Criterion 2," which requires that a process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier, must be included in a licensee's TS. Additionally, Regulatory Guide (RG) 1.190, published in March 2001, describes fluence calculational methods acceptable to the staff (Reference 1). Therefore, this review seeks to

establish that the methodology used followed the guidance in RG 1.190, that it was applied correctly, and that the available EFPY are adequate for the extension requested.

### 3.0 TECHNICAL EVALUATION

The staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendment which are described in Sections 5.0 and 6.0 of Attachment 2 of the licensee's October 21, 2002, 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.

On November 8, 2000, the staff approved the current P/T limits in Amendment 144 for Unit 1 and Amendment 130 for Unit 2. In the issuance of these amendments, the staff limited the use of the P/T curves to an interim period not to exceed December 15, 2002. The staff approved this interim period on the basis of a factor of 2 conservatism between the 32 EFPY of the original calculation and the 16 EFPY of the interim period of approval. (Note: the current P/T limit curves are common to both Units, because they assumed the same fluence and the same limiting beltline element.)

The licensee submitted the plant specific report GE-NE-0000-0002-5244-02 (Reference 2) that details the calculational method and the assumptions and inputs for the peak vessel fluence evaluation. The staff confirmed that the calculational method adheres to the guidance in RG 1.190 and that the licensee used the staff approved method described in NEDC-32983PA (Reference 3). The licensee used cross sections based on the ENDF/B-VI data file as stated in RG 1.190. The calculation assumes a power level of 3489 MWt from initiation of reactor operation. The assumed power level is conservative in that it assumes the uprated power for the entire operating history of the plant.

The licensee calculated the peak vessel inside surface fluence values for both Units 1 and 2. The calculated values for 32 EFPY are:  $1.02 \times 10^{18}$  n/cm<sup>2</sup> and  $1.09 \times 10^{18}$  n/cm<sup>2</sup>, respectively. These values are considerably higher than the values used in the development of the current P-T limits of  $5.0 \times 10^{17}$  n/cm<sup>2</sup> for Unit 1 and  $6.03 \times 10^{17}$  n/cm<sup>2</sup> for Unit 2. At the present power level, the calculated peak fluence values are estimated to occur at 15.7 EFPY for Unit 1 and 17.7 EFPY for Unit 2. As of June 2002, Unit 1 had accumulated 11.6 EFPY and Unit 2 had accumulated 11.0 EFPY. The licensee calculated, and the staff agrees, that Unit 1 could operate for another 4.1 EFPY and Unit 2 for another 6.7 EFPY before they would reach the fluence limit of the current P/T curves. Unit 1 is expected to reach its value first. Assuming that Unit 1 operates at 100 percent load factor, it will not reach this value until after June 2006.

The staff reviewed the information submitted by the licensee in support of their request for continued use of the current P/T curves to allow time for preparation of new P/T limit curves. The licensee recalculated the peak vessel fluence using a staff approved methodology which satisfies the guidance in RG 1.190. The staff concluded that the new values indicate that the current P-T curves are acceptable and will remain valid until June 2006. Therefore, the staff has approved the requested change for the continued use of the current limits for an interim period not to exceed December 15, 2004.

#### 4.0 STATE CONSULTATION

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

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the 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 66170). 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. RG 1.190, "Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence," U.S. Nuclear Regulatory Commission, March 2001.
2. GE-NE-0000-0002-5244-02, "LaSalle 1 and 2 Neutron Flux Evaluation," by Tang Wu, General Electric, June 2002.
3. NEDC-32983PA, Rev. 0, "Licensing Topical Report, General Electric Methodology for Reactor Pressure Vessel Fast Neutron Flux Evaluations," December 2001.

Principal Contributor: L. Lois

Date: December 3, 2002