

September 10, 2001

Mr. Oliver D. Kingsley, President  
Exelon Nuclear  
Exelon Generation Company, LLC  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNIT NOS. 2 AND 3 - ISSUANCE  
OF AMENDMENT RE: PRESSURE - TEMPERATURE LIMITS  
(TAC NOS. MB2262 AND MB2263)

Dear Mr. Kingsley:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 187 to Facility Operating License No. DPR-19 and Amendment No. 182 to Facility Operating License No. DPR-25 for Dresden, Units 2 and 3. The amendments are in response to your application dated June 26, 2001.

The amendments extend the dates specified in Operating License Sections 2.C(8) and 3.P, "Pressure - Temperature Limit Curves," for Dresden Nuclear Power Station, Units 2 and 3, respectively.

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/*

Lawrence W. Rossbach, Project Manager, Section 2  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-237 and 50-249

Enclosures: 1. Amendment No. 187 to DPR-19  
2. Amendment No. 182 to DPR-25  
3. Safety Evaluation

cc w/encls: See next page

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Sincerely,  
**/RA/**  
 Lawrence W. Rossbach, Project Manager, Section 2  
 Project Directorate III  
 Division of Licensing Project Management  
 Office of Nuclear Reactor Regulation

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DATE	8/24/01	9/7/01

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Dresden Nuclear Power Station  
Units 2 and 3

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- 2 -

Dresden Nuclear Power Station  
Units 2 and 3

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EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 187  
License No. DPR-19

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated June 26, 2001, 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, Facility Operating License No. DPR-19 is amended as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-19 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 187, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

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

Attachment:  
Changes to the License

Date of Issuance: September 10, 2001

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 182  
License No. DPR-25

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Exelon Generation Company, LLC (the licensee) dated June 26, 2001, 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, Facility Operating License No. DPR-25 is amended as indicated in the attachment to this license amendment and paragraph 3.B. of Facility Operating License No. DPR-25 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 182, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

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

Attachment:  
Changes to the License

Date of Issuance: September 10, 2001

ATTACHMENT TO LICENSE AMENDMENT NOS. 187 AND 182

FACILITY OPERATING LICENSE NOS. DPR-19 AND DPR-25

DOCKET NOS. 50-237 AND 50-249

Revise the Facility Operating License by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE

Facility Operating License DPR-19, page 3a  
Facility Operating License DPR-25, page 5

INSERT

Facility Operating License DPR-19, page 3a  
Facility Operating License DPR-25, page 5

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 187 TO FACILITY OPERATING LICENSE NO. DPR-19  
AND AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-25  
EXELON GENERATION COMPANY, LLC  
DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3  
DOCKET NOS. 50-237 AND 50-249

1.0 INTRODUCTION

By letter dated June 26, 2001, Exelon Generation Company, LLC requested a license amendment to extend the dates specified in Operating License Sections 2.C(8) and 3.P, "Pressure - Temperature Limit Curves," for Dresden Nuclear Power Station, Units 2 and 3, respectively.

2.0 BACKGROUND

On December 27, 2000, Commonwealth Edison Company (ComEd), the licensee for the Dresden Units 2 and 3, requested technical specification changes to implement an extended power uprate (Ref. 1). The power uprate supporting analysis is presented in General Electric Report NEDC-32961P for Dresden. Section 3.3.1 (of NEDC-32961P) evaluates the projected end of life peak vessel fluence. Subsequent to the December 27, 2000, submittal, ComEd was merged into Exelon Generation Company (Exelon or licensee). By letter dated February 7, 2001, Exelon assumed responsibility for all pending Nuclear Regulatory Commission (NRC) actions that were requested by ComEd.

The projected peak inside surface vessel fluence value for 32 effective full power years (EFPY) of operation (including power uprate) is  $4.4 \times 10^{17}$  n/cm<sup>2</sup> for Dresden Units 2 and 3, while the original estimate was  $5.1 \times 10^{17}$  n/cm<sup>2</sup> for both units. The NRC staff requested justification of the new values and additional information was submitted on June 5 and June 26, 2001 (Refs. 2 and 3).

On September 19, 2000, the NRC staff approved pressure temperature curves for 32 EFPYs of operation for both Dresden Units, subject to a one cycle limit for the confirmation of the fluence value (Ref. 4). On June 26, 2001, the licensee requested that the one cycle limit be extended to two cycles for the Dresden Units 2 and 3.

### 3.0 EVALUATION

The peak inside surface vessel fluence value for the Dresden Nuclear Power Station (DNPS) for 32 EFPYs of operation (including the power uprate) is  $4.4 \times 10^{17}$  n/cm<sup>2</sup>. The original estimate for the same quantity was  $5.1 \times 10^{17}$  n/cm<sup>2</sup>. The new value appeared to be low in absolute value and lower than the original estimate even with the power uprate. The licensee justified the low absolute value based on: (1) the fact that the DNPS vessel has a larger diameter than boiling water reactors (BWRs) with comparable power level, (2) the fact that the power density is lower than that in comparable power pressurized water reactors (PWR) plants, and (3) the fact that the licensee practiced low leakage loadings (and will continue the practice in the future).

The NRC staff finds the proposed justification acceptable because: (1) the larger diameter increases the neutron flux attenuation, (2) the lower power density will decrease the neutron leakage, and (3) the core loading scheme will further decrease neutron leakage.

The recalculation of the peak 32 EFPY fluence indicates that the existing value which was used for the calculation of the pressure - temperature curves is conservative. The NRC staff finds the justification for low absolute peak inside vessel value reasonable and based on known physical parameters, thus, finds the proposed value conservative for 32 EFPYs of operation.

However, the original fluence estimate was based on early dosimetry and associated analysis which does not satisfy the guidance in Regulatory Guide 1.190. The licensee proposed to limit the applicability of the pressure temperature curves to one cycle estimated to occur in November 30, 2001, for Unit 2 and October 31, 2002, for Unit 3 (Ref. 4). The licensee estimated that the one cycle limitation may not be sufficient time to reevaluate the fluence value with a NRC staff approved code, thus, requested extension of the limit to two cycles estimated to occur about December 31, 2003, for Unit 2, and November 30, 2004, for Unit 3 (Ref. 3).

The NRC staff considered the proposed modification and finds that the margin on which the original limit was based will not decrease significantly with the extension to two cycles (including the power uprate) and there will be adequate assurance of safety; therefore, the proposed increase of the limit to two cycles 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 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 (66 FR 41617). 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 R.M. Krich, Commonwealth Edison Company, to US NRC "Request for Power Uprate Operation" December 27, 2000.
2. Letter from R.M. Krich, Exelon Generating Company LLC, to US NRC "Additional Fluence Information Supporting the License Amendment Request to Permit Uprated Power" June 5, 2001.
3. Letter from R.M. Krich, Exelon Generation Company LLC, to US NRC "Request for License Amendment for Pressure Temperature Limits" June 26, 2001.
4. Letter from the US NRC to O.D. Kingsley, Commonwealth Edison Company, "Dresden - Issuance of Amendments - Revised Pressure-Temperature Limits (TAC NOS. MA8346 and MA8347)" September 19, 2000.

Principal Contributor: L. Lois

Date: September 10, 2001