November 2, 2001

Mr. Oliver D. Kingsley, President
Exelon Generation Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNIT 2 - ISSUANCE OF AMENDMENT (TAC NO. MB2126)

Dear Mr. Kingsley:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Amendment No. 189 to Facility Operating License No. DPR-19 for Dresden, Unit 2. The amendment is in response to your application dated June 6, 2001, as supplemented by letter dated September 17, 2001.

The amendment revises the values of the Safety Limit for the Minimum Critical Power Ratio in Technical Specification Section 2.1.1.

A copy of the safety evaluation (SE) 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 No. 50-237

Enclosures: 1. Amendment No. 189 to DPR-19
2. Safety Evaluation

cc w/encls: See next page

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***** Provided SE input by memo dated 10/2/01

ADAMS Accession Number: ML012820250 **See previous concurrence

OFFICE	PM:LPD3-2	LA:LPD3-2	SC:SRXB	OGC	SC:LPD3-2
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DATE	10/26/01	10/26/01	10 / 02 /01	10/24/01	11/2/01

OFFICIAL RECORD COPY

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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. 189
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 6, 2001, as supplemented by letter dated September 17, 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, 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. DPR-19 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 189, 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 Technical
Specifications

Date of Issuance: November 2, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 189

FACILITY OPERATING LICENSE NO. DPR-19

DOCKET NO. 50-237

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
2.0-1	2.0-1

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be ≤ 25% RTP.

2.1.1.2 With the reactor steam dome pressure ≥ 785 psig and core flow ≥ 10% rated core flow:

For Unit 2 two recirculation loop operation, MCPR shall be > 1.08, or for single recirculation loop operation, MCPR shall be > 1.09.

For Unit 3 two recirculation loop operation, MCPR shall be ≥ 1.10, or for single recirculation loop operation, MCPR shall be ≥ 1.11.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be ≤ 1345 psig.

2.2 SL Violations

With any SL violation, the following actions shall be completed within 2 hours:

2.2.1 Restore compliance with all SLs; and

2.2.2 Insert all insertable control rods.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 189 TO FACILITY OPERATING LICENSE NO. DPR-19

EXELON GENERATION COMPANY, LLC

DRESDEN NUCLEAR POWER STATION, UNIT 2

DOCKET NO. 50-237

1.0 INTRODUCTION

By letter dated June 6, 2001, as supplemented by letter dated September 17, 2001, Exelon Generation Company (EGC, the licensee) proposed changes to the Technical Specifications (TS) for the Dresden Nuclear Power Station (DNPS), Unit 2. The proposed changes revise the safety limit for the minimum critical power ratio (SLMCPR) values in TS 2.1.1.2 for DNPS, Unit 2, Cycle 18 operation.

The September 17, 2001, supplemental letter did not change the scope of the proposed action and did not change the Nuclear Regulatory Commission's (NRC) preliminary no significant hazards consideration determination.

2.0 EVALUATION

The licensee requested a change to the DNPS, Unit 2, TS in accordance with 10 CFR 50.90. The proposed revision of the TS is described below.

2.1 Technical Specification 2.1.1.2

The licensee proposed to change the SLMCPR values for DNPS, Unit 2, Cycle 18 operation from exposure dependent values to a constant value of $\geq$1.08 for two recirculation loop operation and to a constant value of $\geq$1.09 for single recirculation loop operation with the reactor steam dome pressure $\geq$ 785 psig and core flow $\geq$ 10 percent rated core flow.

The DNPS, Unit 2, Cycle 18 core has 724 fuel assemblies, of which there are 280 fresh GE14 bundles, 248 once burned ATRIUM-9B fuel bundles, 168 twice burned ATRIUM-9B fuel bundles, and 28 thrice burned ANF9x9-2 fuel bundles (which are all located on the core periphery).

The licensee described the methodology used to calculate the SLMCPR values for Unit 2 Cycle 18 operation such as using GEXL14 correlation for GE14 fuel, GEXL96 correlation for SPC ATRIUM-9B fuel, and GEXL05 correlation for SPC ANF-9x9-2 fuel. The SLMCPR

analysis was performed by Global Nuclear Fuel (GNF) using DNPS, Unit 2, plant- and cycle-specific fuel and core parameters; NRC approved methodologies, including GESTAR II (NEDE-24011-P-A-14, Sections 1.1.5 and 1.2.5), NEDO-10958-A (GETAB January 1977), NEDC-52505P, Revision (R-Factor Calculation Method for GE11, GE12 and GE13 Fuel), NEDC-32691P, NEDC-32694P, NEDC-32981P (GEXL96 Correlation for ATRIUM-9B Fuel); and Amendment 25 to NEDE-24011P.

The NRC staff has reviewed the justification contained in the application and supplement for the SLMCPR value of 1.08 for two recirculation loop operation and 1.09 for single loop operation using the approach stated in Amendment 25 to GESTAR-II. Based on our review of the application, our on-site audit, and the supplement to the application, including the detailed summary results of the analysis for Unit 2 current versus proposed Cycle 18 operation, the staff has concluded that the SLMCPR analysis for DNPS, Unit 2, Cycle 18 operation using the plant- and cycle-specific calculation in conjunction with the approved methods, which used a higher critical power ratio (CPR) correlation uncertainty value (for GEXL14 and GEXEL96 correlation), is acceptable. The Unit 2 Cycle 18 SLMCPR will ensure that 99.9 percent of the fuel rods in the core will not experience boiling transition, which satisfies the requirements of Generic Design Criterion 10 of Appendix A to 10 CFR Part 50 regarding acceptable fuel design limits. The staff has concluded that the justification for analyzing and determining the SLMCPR value of 1.08 for two recirculation loop operation and 1.09 for single recirculation loop operation for DNPS, Unit 2 Cycle 18 is acceptable since approved methodologies were used and upper bound SLMCPR values were selected from the results of the analysis for Dresden 2 Cycle 18 exposure dependent SLMCPR values.

3.0 SUMMARY

The NRC staff has reviewed the request by EGC to revise the TS for the DNPS, Unit 2, Cycle 18 operation. Based on the review, the staff concludes that these revisions are acceptable.

The staff has concluded, based on the consideration discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation of DNPS, Unit 2, 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.

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 46479). 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.

Principal Contributor: Tai Huang

Date: November 2, 2001