

December 21, 2001

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

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3 - ISSUANCE OF  
AMENDMENTS FOR EXTENDED POWER UPRATE (TAC NOS. MB0844 AND  
MB0845)

Dear Mr. Kingsley:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 191 to Facility Operating License No. DPR-19 and Amendment No. 185 to Facility Operating License No. DPR-25 for Dresden Nuclear Power Station, Units 2 and 3. The amendments are in response to your application dated December 27, 2000, as supplemented by letters dated February 12; April 6 and 13; May 3, 18, and 29; June 5, 7, and 15; July 6 and 23; August 7, 8, 9, 13 (two letters), 14 (two letters), 29, and 31 (two letters); September 5 (two letters), 14, 19, 25, 26, and 27 (two letters); October 17; November 2, 16, and 30; and December 10, 17 and 18, 2001.

The original application was submitted by Commonwealth Edison Company (ComEd), the former licensee. ComEd subsequently transferred the licenses to Exelon Generation Company, LLC (EGC, the licensee). By letter dated February 7, 2001, EGC informed the Nuclear Regulatory Commission (NRC) that it assumed responsibility for all pending NRC actions that were requested by ComEd.

The amendments allow an increase in the maximum authorized operating power level from 2527 megawatts thermal (MWt) to 2957 MWt, a power increase of approximately 17 percent. These amendments include revisions to the Operating Licenses and Technical Specifications (TS) that are necessary to implement this increase in licensed power level.

As requested by your amendment application dated February 22, 2001, we reviewed the reactor vessel water level - low TS changes separately from the extended power uprate (EPU). The reactor vessel water level - low TS changes were issued by letter dated December 18, 2001.

The December 27, 2001, application also requested a change that would permit you to take credit for the safety function of the Target Rock safety/relief valve. While the staff has not completed its review of this change, it is not needed to support EPU operations and, thus, does not fall within the scope of the *Federal Register* notice. The staff is addressing this issue separately from the EPU and will issue its findings under a separate cover. This does not affect the EPU in any way.

O. Kingsley

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A copy of the Safety Evaluation is also enclosed. The Notice of Issuance has been forwarded to the Office of the Federal Register for publication.

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. 191 to DPR-19  
2. Amendment No. 185 to DPR-25  
3. Safety Evaluation  
4. Notice of Issuance

cc w/encls: See next page

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance has been forwarded to the Office of the Federal Register for publication.

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. 191 to DPR-19  
 2. Amendment No. 185 to DPR-25  
 3. Safety Evaluation  
 4. Notice of Issuance

cc w/encls: See next page

**DISTRIBUTION**

PUBLIC	AMendiola	OGC	RArchitzel	GHubbard	G Hill (4)
PD3-2 r/f	LRossbach	ACRS	EAndruszkiewicz	BThomas	RBarrett
SCollins	SBailey	EKendrick	DHarrison	RCaruso	TQuay
BSheron	MShuaibi	LLois	SLaVie	CHolden	WBeckner
JZwolinski	CRosenberg	HGarg	JWigginton	EMarinos	M Ring, R-III
LMarsh	THarris	APal	REckenrode	KManoly	
SBajwa		CWu	RPettis	KWichman	
				KGibson	

**ADAMS Accession No. ML013620048 (Amendment Package)**

**ADAMS Accession No. ML013510595 (Cover letter, Amendment, and License)**

**ADAMS Accession No. ML013600415 (TS Pages)**

**ADAMS Accession No. ML013540187 (Safety Evaluation)**

**ADAMS Accession No. ML013530467 (Notice of Issuance)**

\*Previously Concurred

OFFICE	PM:LPD3-2	LA:LPD3-2	TECH ED*	OGC*	SC:LPD3-2
NAME	LRossbach	CRosenberg	PKleene	APHodgdon	AMendiola
DATE	12/20/01	12/20/01	11/28/01	12/18/01	12/20/01

OFFICE	SRXB/BWR	PDIII/D	DLPM/D	NRR/ADPT
NAME	RCaruso	SBajwa <i>AJM for</i>	JZwolinski <i>LBMarsh for</i>	BSheron
DATE	12/20/01	12/20/01	12/20/01	12/21/01

*The following technical branches provided safety evaluation input by memos dated\**

OFFICE	SPLB	EEIB/elec	EEIB/I&C	EMCB	SRXB/PWR	SPSB/licensing
NAME	GHubbard	CHolden	EMarinos	KWichman	FAkstulewicz	FM Reinhart
DATE*	09/07/01 & 12/ /01	08/08/01	08/08/01 & 9/13/01	06/29/01	06/29/01	09/12/01

EMEB	IOLB	IOLB	SPSB/risk	IEHB
KManoly	KGibson	DTrimble	RBarrett	TQuay
09/11/01	08/29/01	08/23/01	10/19/01	08/16/01

O. Kingsley  
Exelon Generation Company, LLC

Dresden Nuclear Power Station  
Units 2 and 3

cc:

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Chief Operating Officer  
Exelon Generation Company, LLC

O. Kingsley  
Exelon Generation Company, LLC

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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. 191

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 December 27, 2000, as supplemented by letters dated February 12; April 6 and 13; May 3, 18, and 29; June 5, 7, and 15; July 6 and 23; August 7, 8, 9, 13 (two letters), 14 (two letters), 29, and 31 (two letters); September 5 (two letters), 14, 19, 25, 26, and 27 (two letters); October 17; November 2, 16, and 30; and December 10, 17, and 18, 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. 191, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

In addition, the license is amended to revise paragraph 2.C.(1) of Facility Operating License No. DPR-19 to reflect the new authorized reactor core power level of 2957 megawatts thermal. The license is also amended to replace the first condition in Appendix B with new License Condition 2.C.(17). License Condition 2.C.(17) reads as follows:

2.C.(17) The license is amended to authorize changing the UFSAR to allow credit for containment overpressure as detailed below, to assure adequate Net Positive Section Head is available for low pressure Emergency Core Cooling System pumps following a design-basis accident.

From (sec)	To (sec)	Credit (psig)
Accident start	290	9.5
290	5,000	4.8
5,000	30,000	6.6
30,000	40,000	6.0
40,000	45,500	5.4
45,500	52,500	4.9
52,500	60,500	4.4
60,500	70,000	3.8
70,000	84,000	3.2
84,000	104,000	2.5
104,000	136,000	1.8
136,000	Accident end	1.1

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

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Brian W. Sheron, Acting Director  
Office of Nuclear Reactor Regulation

Attachment:

Changes to the Operating License and Technical Specifications

Date of Issuance: December 21, 2001



EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 185  
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 December 27, 2000, as supplemented by letters dated February 12; April 6 and 13; May 3, 18, and 29; June 5, 7, and 15; July 6 and 23; August 7, 8, 9, 13 (two letters), 14 (two letters), 29, and 31 (two letters); September 5 (two letters), 14, 19, 25, 26, and 27 (two letters); October 17; November 2, 16, and 30; and December 10, 17, and 18, 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 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. 185, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

In addition, the license is amended to revise paragraphs d. and 3.A. of Facility Operating License No. DPR-25 to reflect the new authorized reactor core power level of 2957 megawatts thermal. The license is also amended to replace the first condition in Appendix B with new License Condition 3.X. License Condition 3.X. reads as follows:

- 3.X. The license is amended to authorize changing the UFSAR to allow credit for containment overpressure as detailed below, to assure adequate Net Positive Section Head is available for low pressure Emergency Core Cooling System pumps following a design-basis accident.

From (sec)	To (sec)	Credit (psig)
Accident start	290	9.5
290	5,000	4.8
5,000	30,000	6.6
30,000	40,000	6.0
40,000	45,500	5.4
45,500	52,500	4.9
52,500	60,500	4.4
60,500	70,000	3.8
70,000	84,000	3.2
84,000	104,000	2.5
104,000	136,000	1.8
136,000	Accident end	1.1

3. This license amendment is effective as of the date of its issuance and shall be implemented prior to reaching Startup (i.e., Mode 2) following refueling outage 17, scheduled for completion in October 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Brian W. Sheron, Acting Director  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Operating License and Technical Specifications

Date of Issuance: December 21, 2001

ATTACHMENT TO LICENSE AMENDMENT NOS. 191 AND 185

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

DOCKET NOS. 50-237 AND 50-249

Replace the following pages of the Operating Licenses with the attached revised pages. The revised pages are identified by amendment number and contain vertical lines in the margin indicating the area of change.

Remove Pages

DPR-19, page 3  
DPR-19, page 3d  
DPR-19 Appendix B, page 1

DPR-25, page 1  
DPR-25, page 3a  
--  
DPR-25 Appendix B, page 1

Insert Pages

DPR-19, page 3  
DPR-19, pages 3d and 3e  
DPR-19 Appendix B, page 1

DPR-25, page 1  
DPR-25, page 3a  
DPR-25, page 7a  
DPR-25 Appendix B, page 1

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

Remove Pages

i  
1.1-3  
1.1-4  
1.1-5  
3.2.4-1  
3.2.4-2  
3.3.1.1-2  
3.3.1.1-4  
3.3.1.1-6  
3.3.1.1-8  
3.3.1.1-9  
3.3.1.1-10  
3.3.5.2-2  
3.3.6.1-5  
5.5-11  
5.6-3

Insert Pages

i  
1.1-3  
1.1-4  
1.1-5  
--  
--  
3.3.1.1-2  
3.3.1.1-4  
3.3.1.1-6  
3.3.1.1-8  
3.3.1.1-9  
3.3.1.1-10  
3.3.5.2-2  
3.3.6.1-5  
5.5-11  
5.6-3

- (5) Exelon Generation Company, LLC, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct special nuclear materials as may be produced by the operation of the facility.

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 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 steady state reactor core power levels not in excess of 2957 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

- (2) Technical Specifications

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

- (3) Operation in the coastdown mode is permitted to 40% power.

- (4) The valves in the equalizer piping between the recirculation loops shall be closed at all times during reactor operation.

- (5) The licensee shall maintain the commitments made in response to the March 14, 1983, NUREG-0737 Order, subject to the following provision:

The licensee may make changes to commitments made in response to the March 14, 1983, NUREG-0737 Order without prior approval of the Commission as long as the change would be permitted without NRC approval, pursuant to the requirements of 10 CFR 50.59. Consistent with this regulation, if the change results in an Unreviewed Safety Question, a license amendment shall be submitted to the NRC staff for review and approval prior to implementation of the change.

- (6) Surveillance Requirements

The Surveillance Requirements contained in Appendix A Technical Specifications and listed below are not required to be performed immediately upon implementation of Amendment No. 150:

- (17) The license is amended to authorize changing the UFSAR to allow credit for containment overpressure as detailed below, to assure adequate Net Positive Section Head is available for low pressure Emergency Core Cooling System pumps following a design-basis accident.

From (sec)	To (sec)	Credit (psig)	
Accident start	290	9.5	
290	5,000	4.8	
5,000	30,000	6.6	
30,000	40,000	6.0	
40,000	45,500	5.4	
45,500	52,500	4.9	
52,500	60,500	4.4	
60,500	70,000	3.8	
70,000	84,000	3.2	
84,000	104,000	2.5	
104,000	136,000	1.8	
136,000	Accident end	1.1	

- D. The facility has been granted certain exemptions from the requirements of Section III.G of Appendix R to 10 CFR Part 50, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979." This section relates to fire protection features for ensuring the systems and associated circuits used to achieve and maintain safe shutdown are free of fire damage. These exemptions were granted and sent to the licensee in letters dated February 2, 1983, September 28, 1987, July 6, 1989, and August 15, 1989.

In addition, the facility has been granted certain exemptions from Sections II and III of Appendix J to 10 CFR Part 50, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." This section contains leakage test requirements, schedules and acceptance criteria for tests of the leak-tight integrity of the primary reactor containment and systems and components which penetrate the containment. These exemptions were granted and sent to the licensee in a letter dated June 25, 1982.

These exemptions granted pursuant to 10 CFR 50.12 are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. With these exemptions, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

APPENDIX B

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. DPR-19

The licensee shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
157	The EOPs shall be changed to alert operator to NPSH concerns and to make containment spray operation consistent with the overpressure requirements for NPSH.	Shall be implemented within 30 days after issuance of Amendment No. 157.
160	This amendment authorizes the licensee to incorporate in the Updated Final Safety Analysis Report (UFSAR), the description of the Reactor Coolant System design pressure, temperature and volume that was removed from Technical Specification Section 5.4, and evaluated in a safety evaluation dated June 12, 1997.	30 days from the date of issuance of Amendment No. 160.
163	The licensee shall review the Dresden Operation Annunciator and General Abnormal Conditions Procedures and revise them as required to ensure operator action is taken in a timely manner to limit occupational doses and environmental releases.	60 days from the date of issuance of Amendment No. 163



EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

FACILITY OPERATING LICENSE

License No. DPR-25

The Atomic Energy Commission (the Commission) has found that:

- a. The applicant\* has submitted to the Commission all technical information required by Provisional Construction Permit No. CPPR-22, the Atomic Energy Act of 1954, as amended (the Act), and the rules and regulations of the Commission to complete the application for a construction permit and facility license dated February 10, 1966, as supplemented by application for a facility license dated November 17, 1967 and amended by Amendment Nos. 8 through 24, dated August 30, 1968, November 21, 1968, February 28, 1969, March 18, 1969, April 16, 1969, May 20, 1969, July 2, 1969, July 22, 1969, August 5, 1969, August 8, 1969, August 10, 1969, August 18, 1969, September 2, 1969, October 16, 1969, May 7, 1970, August 11, 1970 and September 4, 1970, respectively (the application); and supplemented by the applicant's letter dated December 17, 1970, and telegram dated December 18, 1970;
- b. The Dresden Nuclear Power Station Unit 3 (the facility) has been substantially completed in conformity with Provisional Construction Permit No. CPRR-22, the application, the provisions of the Act and the rules and regulations of the Commission;
- c. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
- d. There is reasonable assurance: (i) that the facility can be operated at power levels not in excess of 2957 megawatt (thermal) in accordance with this license without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
- e. Exelon Generation Company, LLC is technically and financially qualified to engage in the activities authorized by this operating license; in accordance with the rules and regulations of the Commission;

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\*The Nuclear Regulatory Commission approved the transfer of the license from Commonwealth Edison Company to Exelon Generation Company, LLC on August 3, 2000.

A. Maximum Power Level

The licensee is authorized to operate the facility at steady state power levels not in excess of 2957 megawatts (thermal), except that the licensee shall not operate the facility at power levels in excess of five (5) megawatts (thermal), until satisfactory completion of modifications and final testing of the station output transformer, the auto-depressurization interlock, and the feedwater system, as described in the licensee's telegrams dated February 26, 1971, have been verified in writing by the Commission.

B. Technical Specifications

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

C. Reports

The licensee shall make certain reports in accordance with the requirements of the Technical Specifications.

D. Records

The licensee shall keep facility operating records in accordance with the requirements of the Technical Specifications.

- X. The license is amended to authorize changing the UFSAR to allow credit for containment overpressure as detailed below, to assure adequate Net Positive Section Head is available for low pressure Emergency Core Cooling System pumps following a design-basis accident.

From (sec)	To (sec)	Credit (psig)
Accident start	290	9.5
290	5,000	4.8
5,000	30,000	6.6
30,000	40,000	6.0
40,000	45,500	5.4
45,500	52,500	4.9
52,500	60,500	4.4
60,500	70,000	3.8
70,000	84,000	3.2
84,000	104,000	2.5
104,000	136,000	1.8
136,000	Accident end	1.1

APPENDIX B

ADDITIONAL CONDITIONS

FACILITY OPERATING LICENSE NO. DPR-25

The licensee shall comply with the following conditions on the schedules noted below:

<u>Amendment Number</u>	<u>Additional Condition</u>	<u>Implementation Date</u>
152	The licensee shall complete the evaluation of the torus attached piping.	Prior to Unit 3 returning to Mode 3 from refueling outage D3R14.
152	The EOPs shall be changed to alert operator to NPSH concerns and to make containment spray operation consistent with the overpressure requirements for NPSH.	Shall be implemented within 30 days after issuance of Amendment No. 152.
155	This amendment authorizes the licensee to incorporate in the Updated Final Safety Analysis Report (UFSAR), the description of the Reactor Coolant System design pressure, temperature and volume that was removed from Technical Specification Section 5.4, and evaluated in a safety evaluation dated June 12, 1997.	30 days from the date of issuance of Amendment No. 155.