

July 30, 2003

Mr. John L. Skolds, 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 PRIMARY CONTAINMENT ISOLATION INSTRUMENTS
FOR THE ISOLATION CONDENSER SYSTEM (TAC NOS. MB7520 AND
MB7521)

Dear Mr. Skolds:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 200 to Facility Operating License No. DPR-19 and Amendment No. 192 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 January 31, 2003.

The amendments change Technical Specification allowable values for two isolation condenser system isolation functions, namely the Steam Flow - High, and the Return Flow - High.

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. 200 to DPR-19
2. Amendment No. 192 to DPR-25
3. Safety Evaluation

cc w/encls: See next page

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ADAMS Accession No.: ML032130522 (Package)

ADAMS Accession No.: ML031830428 (Letter)

ADAMS Accession No.: ML032130513 (Technical Specifications)

*see previous concurrence

OFFICE	PM:LPD3-2	LA:LPD3-2	SC:EEIB(A)	OGC	SC:LPD3-2
NAME	LRossbach	PCoates	IAhmed for EMarinos*	RHoefling*	AMendiola
DATE	07/29/03	07/29/03	07/08/03	07/17/03	07/30/03

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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. 200
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 January 31, 2003, 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. 200, 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 90 days of the date of issuance.

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: July 30, 2003

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 192
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 January 31, 2003, 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. 192, 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 90 days of the date of issuance.

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: July 30, 2003

ATTACHMENT TO LICENSE AMENDMENT NOS. 200 AND 192

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

DOCKET NOS. 50-237 AND 50-249

Replace the following page of the Appendix "A" Technical Specification with the attached page. The revised page is identified by amendment number and contains lines in the margin indicating the area of change.

Remove Page

3.3.6.1-6

Insert Page

3.3.6.1-6

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 200 TO FACILITY OPERATING LICENSE NO. DPR-19
AND AMENDMENT NO. 192 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 application dated January 31, 2003, Exelon Generation Company, LLC, (the licensee) requested changes to the Technical Specification (TS) for the Dresden Nuclear Power Station, Units 2 and 3.

The proposed changes would revise the allowable values (AVs) for two isolation condenser (IC) system isolation functions, namely the "Steam Flow - High," and the "Return Flow - High." These proposed changes support the licensee's plan to upgrade the Division of Operating Reactors (DOR) guidelines qualified flow switches with Class 1E qualified flow switches for Units 2 and 3. Specifically, the licensee has proposed changes that would revise TS Table 3.3.6.1-1, "Primary Containment Isolation Instrumentation" as follows:

- a. Function 4.a, Steam Flow - High, change the AV from " $\leq 290.76\%$ of rated steam flow" to " ≤ 273.65 of rated steam flow."
- b. Function 4.b, Return Flow - High, change the AV from " ≤ 30.2 inches water (Unit 2)" to " ≤ 26.0 inches water (Unit 2)," and " ≤ 13.7 inches water (Unit 3)" to " ≤ 10.7 inches water (Unit 3)."

The IC "Flow - High" functions are provided to detect a break of IC lines and initiate closure of the inboard and outboard steam and condensate return isolation valves and vent line isolation valves. If steam or condensate continues to flow out the break, the reactor may be depressurized and the core uncovered. Therefore, the isolation is initiated on high flow to prevent or mitigate core damage. Redundant sensor inputs for each parameter provide for isolation initiation.

The current instrumentation for the above IC isolation functions utilizes two locally mounted, indicating differential pressure switches for monitoring each variable. The licensee is proposing to replace the existing high flow isolation differential pressure switches, qualified to the DOR environmental qualification guidelines with Class 1E qualified differential pressure switches. No change is being made to the circuit design or logic.

The IC “Steam Flow - High” and “Return Flow - High” functions each receive input from one channel via the associated flow switch. The steam flow switch and the condensate flow switch are connected in a one-out-of-two logic in each of two trip strings. Each of the two trip strings provides input to two trip systems in a one-out-of-two logic, and each trip system isolates either the inboard or the outboard IC steam and condensate isolation valves. The IC functions isolate Group 5 valves.

The operability of primary containment instrumentation is dependent of the operability of the individual instrument channel functions specified in Table 3.3.6.1-1. Each function must have a required number of operable channels, with their setpoints within the specified AV where applicable. The setpoint must be calibrated in accordance with the applicable setpoint methodology. The individual functions of Table 3.3.6.1-1 are required to be operable in Modes 1, 2, and 3, consistent with the applicability of limiting condition for operation (LCO) 3.6.1.1, “Primary Containment.”

2.0 REGULATORY EVALUATION

In Section 50.36(c)(2)(ii) of Title 10 of the *Code of Federal Regulations* (10 CFR), the Commission established the regulatory requirements related to the content of TS. Section 50.36(c)(2) requires that the TS include limiting conditions for operation for items meeting at least one of four criteria. Criterion 3 includes “a structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design-basis accident (DBA) or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.” Section 50.46 provides the acceptance criteria for emergency core cooling systems for light-water nuclear power reactors. Paragraph (b)(1) of Section 50.46 specifies that the calculated maximum fuel element cladding temperature shall not exceed 2200 °F. The staff finds that the licensee has identified the applicable regulatory requirements in their safety analysis attached to the January 31, 2003 application.

3.0 TECHNICAL EVALUATION

The staff has reviewed the licensee’s regulatory and technical analyses in support of its proposed license amendments which are described in the licensee’s submittal. Based on the review of the licensee’s submittal, the staff concludes that the proposed TS changes are acceptable. 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 Proposed Change: The licensee proposed changes to the AVs specified in TS Table 3.3.6.1-1, Function 4, Isolation Condenser System Isolation. The proposed AV for Function 4.a, Steam Flow - High, is changed to $\leq 273.65\%$ of rated steam flow from $\leq 290.76\%$ of rated steam flow. The proposed AV for Function 4.b, Return Flow - High, is changed to ≤ 26.0 inches water from ≤ 30.2 inches water for Unit 2 and to ≤ 10.7 inches water from ≤ 13.7 inches water for Unit 3.

Evaluation: The proposed changes of AVs support replacement of a differential pressure switch. The new switches are qualified to more stringent standards and differ

from the existing switches in switch performance values such as reference accuracy and allowed setpoint drift due to accident environment effects. The calculations were done with new performance values using the setpoint methodology approved by the NRC. As a result, the calculated AVs for the new differential pressure switches differ from that calculated for the existing switches.

The AVs are chosen low enough to ensure that the trip occurs to prevent fuel damage and maintain the main steam line break (MSLB) event as the bounding event. The proposed AVs remain well above 200% of normal flow. Therefore, lowering the AVs and the corresponding setpoints will have no adverse effect on normal operation of the isolation condenser. Primary containment isolation instrumentation satisfies Criterion 3 of 10 CFR 50.36(c)(2)(ii). The isolation, along with the scram function of the reactor protection system, ensures that the fuel peak cladding temperature remains below the limits of 10 CFR 50.46.

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 amendments change a requirement with respect to 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 (68 FR 18277). 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. Therefore, the licensee's proposed changes to the allowable values for two isolation condenser system isolation functions, Steam Flow - High and Return Flow - High, specified in TS Table 3.3.6.1-1, are acceptable.

Principal Contributor: S. Rhow, EEIB/DE

Date: July 30, 2003

Dresden Nuclear Power Units 2 and 3

cc:

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