March 30, 2000

Template # NRR-058

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

SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. MA6660 AND MA6661)

Dear Mr. Kingsley:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 176 to Facility Operating License No. DPR-19 and Amendment No. 172 to Facility Operating License No. DPR-25 for the Dresden Nuclear Power Station, Units 2 and 3. The amendments are in response to your application dated May 20, 1999.

The amendments change the Technical Specification (TS) value for the minimum suppression chamber water level to a more conservative value.

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly <u>Federal Register</u> notice.

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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Docket Nos. 50-237 and 50-249

Enclosures: 1. Amendment No. 176 to DPR-19

2. Amendment No. 172 to DPR-25

3. Safety Evaluation

cc w/encls: See next page

*see previous page for concurrence

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O. Kingsley Commonwealth Edison Company

CC:

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UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

DRESDEN NUCLEAR POWER STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 176 License No. DPR-19

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Commonwealth Edison Company (the licensee) dated May 20, 1999, 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) <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 176, 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

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: March 30, 2000

- 2 -



UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

DRESDEN NUCLEAR POWER STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 172 License No. DPR-25

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Commonwealth Edison Company (the licensee) dated May 20, 1999, 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. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 172, 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 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

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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: March 30, 2000

ATTACHMENT TO LICENSE AMENDMENTS NOS. 176 AND 172

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

DOCKET NOS. 50-237 AND 50-249

Revise the Appendix A Technical Specifications by replacing the pages identified below with the enclosed pages. The revised pages are identified by amendment number and contain a vertical line indicating the area of change.

INSERT	REMOVE
3/4.5-7	3/4.5-7
B3/4.5-3	B3/4.5-3

EMERGENCY CORE COOLING SYSTEMS

Suppression Chamber 3/4.5.C

3.5 - LIMITING CONDITIONS FOR OPERATION

C. Suppression Chamber

The suppression chamber shall be OPERABLE:

- In OPERATIONAL MODE(s) 1, 2, and 3 with a contained water volume equivalent to a water level of ≥14' 6.5" above the bottom of the suppression chamber.
- In OPERATIONAL MODE(s) 4 and 5^(a) with a contained volume equivalent to a water level of ≥10' 4" above the bottom of the suppression chamber, except that the suppression chamber level may be less than the limit provided that:
 - a. No operations are performed that have a potential for draining the reactor vessel,
 - b. The reactor mode switch is locked in the Shutdown or Refuel position,
 - c. The condensate storage tank contains ≥140,000 available gallons of water, and
 - d. The ECCS systems are OPERABLE per Specification 3.5.B.

APPLICABILITY:

OPERATIONAL MODE(s) 1, 2, 3, 4 and 5^(a).

4.5 - SURVEILLANCE REQUIREMENTS

C. Suppression Chamber

The suppression chamber shall be determined OPERABLE by verifying:

- For OPERATIONAL MODE(s) 1, 2 and 3, at least once per 24 hours, the water level to be ≥14' 6.5".
- 2. For OPERATIONAL MODE(s) 4 or 5^(a), at least once per 12 hours:
 - a. The water level to be $\geq 10'4"$, or
 - b. Verify the alternate conditions of Specification 3.5.C.2, or the conditions of footnote (a), to be satisfied.

DRESDEN - UNITS 2 & 3

a The suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specification 3.10.G and 3.10.H.

BASES

<u>3/4.5.C</u> <u>Suppression Chamber</u>

The suppression chamber is required to be OPERABLE as part of the ECCS to ensure that a sufficient supply of water is available to the HPCI and CS systems and the LPCI subsystem in the event of a LOCA. This limit on suppression chamber minimum water volume ensures that sufficient water is available to permit recirculation cooling flow to the core. The OPERABILITY of the suppression chamber in OPERATIONAL MODE(s) 1, 2 or 3 is also required by Specification 3.7.K.

Repair work might require making the suppression chamber inoperable. This specification will permit those repairs to be made and concurrently provide assurance that the irradiated fuel has an adequate cooling water supply when the suppression chamber must be made inoperable, including draining, in OPERATIONAL MODE(s) 4 or 5.

In OPERATIONAL MODE(s) 4 and 5 the suppression chamber minimum required water volume is reduced because the reactor coolant is maintained at or below 212°F. Since pressure suppression is not required below 212°F, the minimum water volume is based on net positive suction head (NPSH), recirculation volume and vortex prevention. With the suppression chamber water level less than the required limit, all ECCS subsystems are inoperable unless they are aligned to an OPERABLE condensate storage tank. When the suppression chamber level is less than 10'4", the CS system or the LPCI subsystem is considered OPERABLE only if it can take suction from the condensate storage tank, and the condensate storage tank water level is sufficient to provide the required NPSH for the CS or LPCI pumps. Therefore, a verification that either the suppression chamber water level is greater than or equal to 10'4" or that CS or LPCI is aligned to take suction from the condensate storage tank and the condensate storage tank contains greater than or equal to 140,000 gallons of water, ensures CS or LPCI can supply at least 50,000 gallons of make-up water to the reactor pressure vessel. The CS suction is uncovered at the 90,000 gallon level.

3/4.5.D Isolation Condenser

The isolation condenser is provided for core decay heat removal following reactor isolation from the main condenser and reactor scram. The isolation condenser has a heat removal capacity (252.5×10^6 BTU/hour) sufficient to handle the decay heat production at 300 seconds following a scram. Following a reactor scram and an isolation from the main condenser, water will be lost from the reactor vessel through the relief valves during the first 300 seconds. This represents a minor loss relative to the vessel inventory.

The system may be manually initiated at any time. The system is automatically initiated on high reactor pressure in excess of 1070 psig sustained for 17 seconds. The time delay is provided to prevent unnecessary actuation of the system during anticipated turbine trips. Automatic initiation is provided to minimize the coolant loss following isolation from the main condenser. To be considered OPERABLE, the shell side of the isolation condenser must contain sufficient volume to meet the heat removal requirements specified in the UFSAR. Make-up water to the shell side of

DRESDEN - UNITS 2 & 3



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 176 TO FACILITY OPERATING LICENSE NO. DPR-19

AND AMENDMENT NO. 172 TO FACILITY OPERATING LICENSE NO. DPR-25

COMMONWEALTH EDISON COMPANY

DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

DOCKET NOS. 50-237 AND 50-249

1.0 INTRODUCTION

By letter dated May 20, 1999, Commonwealth Edison Company (ComEd, the licensee) proposed changes to revise the Technical Specification (TS) value for suppression chamber water level at the Dresden Nuclear Power Station, Units 2 and 3. The proposed changes will correct the TSs and Bases to reflect the current design bases.

2.0 EVALUATION

Dresden TS 3/4.5.C currently requires that the suppression chamber level be maintained at or above 8' in MODES 4 and 5 for it to be OPERABLE. There is an exception for MODE 5 where the suppression chamber is not required to be OPERABLE provided that the reactor vessel head is removed, the cavity is flooded or being flooded from the suppression pool, the spent fuel pool gates are removed when the cavity is flooded, and the water level is maintained within the limits of Specification 3.10.G, "Water Level - Reactor Vessel" and 3.10.H, "Water Level - Spent Fuel Storage Pool." The licensee has determined that this 8' level was based on providing adequate net positive suction head (NPSH) for a single Emergency Core Cooling System (ECCS) pump start. Even though one pump is sufficient to ensure adequate core coverage and two pumps are required to be OPERABLE in MODE(s) 4 and 5, there is a potential that all six ECCS pumps (four low pressure coolant injection pumps and two core spray pumps) could start. The minimum water level for MODE(s) 4 and 5 is based on NPSH, recirculation volume, and vortex prevention. The current TS value of greater than or equal to 8' may not provide adequate NPSH required for all six pumps. The licensee has determined that the proper suppression chamber water level in MODE(s) 4 and 5 should be greater than or equal to 10' 4".

The proposed change replaces 8' with 10' 4" in TS 3.5.C.2 and TS 4.5.C.2. By TS Amendments 181/179 dated October 8, 1998, NRC approved a similar change for the Quad Cities Nuclear Power Station. The proposed change in the Dresden TS and Bases provides for an adequate NPSH margin and is more conservative than the current suppression chamber level value to

level value to ensure the ECCS pumps would be available when required. Therefore, this change is acceptable.

3.0 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.

4.0 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 and change a surveillance requirement. 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 (64 FR 46426). 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.

5.0 <u>CONCLUSION</u>

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: Lawrence W. Rossbach

Date: March 30, 2000