October 26, 1988

Docket Nos.: 50-237 and 50-249

> Mr. Henry E. Bliss Nuclear Licensing Manager Commonwealth Edison Company Post Office Box 767 Chicago, Illinois 60690

DISTRIBUTION: Docket file NRC & Local PDRs PDIII-2 r/f GHolahan MVirailio DMuller LLuther BSiegel OGC DHagan

BGrimes EJordan TBarnhart (8) WJones EButcher GPA/PA ARM/LFMB PDIII-2 plant file ACRS (10)

Dear Mr. Bliss:

TECHNICAL SPECIFICATION AMENDMENT TO CHANGE THE OPERABILITY SUBJECT: REQUIREMENTS OF THE EMERGENCY CORE COOLING SYSTEMS DURING THE COLD SHUTDOWN AND REFUELING OPERATIONAL MODES (TAC NOS 29262 AND 29263)

Dresden Nuclear Power Station, Unit Nos. 2 and 3 Re:

The Commission has issued the enclosed Amendment No. 101 to Provisional Operating License No. DPR-19 for Dresden Unit 2 and Amendment No. 97 to Facility Operating License No. DPR-25 for Dresden Unit 3. The amendments are in response to your application dated August 31, 1988.

The amendments revise the Technical Specification requirements of Section 3.5.F to include more prescriptive requirements for Emergency Core Cooling Systems operability during cold shutdown and refueling operational modes.

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notices.

Sincerely,

15/

Byron Siegel, Project Manager Project Directorate III-2 Division of Reactor Projects - III, IV. V and Special Projects

Enclosures:

- Amendment No.101 to 1. License No. DPR-19
- Amendment No. 97 to 2. License No. DPR-25
- 3. Safety Evaluation

cc w/enclosures: See next page

\*See previous concurrence

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OGC 10/13/88

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RSB \*WHodges 10/7/88

Docket Nos.: 50-237 and 50-249

> Mr. Henry E. Bliss Nuclear Licensing Manager Commonwealth Edison Company Post Office Box 767 Chicago, Illinois 60690

Dear Mr. Bliss:

SUBJECT: TECHNICAL SPECIFICATION AMENDMENT TO CHANGE THE OPERABILITY REQUIREMENTS OF THE EMERGENCY CORE COOLINGS SYSTEMS DURING THE COLD SHUTDOWN AND REFUELING OPERATIONAL MODES (TAC NOS 29262 AND 29263)

Re: Dresden Nuclear Power Station, Unit Nos. 2 and 3

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

October 26, 1988

Docket Nos.: 50-237 and 50-249

> Mr. Henry E. Bliss Nuclear Licensing Manager Commonwealth Edison Company Post Office Box 767 Chicago, Illinois 60690

Dear Mr. Bliss:

SUBJECT: TECHNICAL SPECIFICATION AMENDMENT TO CHANGE THE OPERABILITY REQUIREMENTS OF THE EMERGENCY CORE COOLING SYSTEMS DURING THE COLD SHUTDOWN AND REFUELING OPERATIONAL MODES (TAC NOS 29262 AND 29263)

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The amendments revise the Technical Specification requirements of Section 3.5.F to include more prescriptive requirements for Emergency Core Cooling Systems operability during cold shutdown and refueling operational modes.

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notices.

Sincerely,

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Býron Siegel, Project Manager Project Directorate III-2 Division of Reactor Projects - III, IV, V and Special Projects

Enclosures:

- 1. Amendment No.101 to License No. DPR-19
- 2. Amendment No. 97 to
- License No. DPR-25 3. Safety Evaluation
- 5. Salety Evaluation

cc w/enclosures: See next page Mr. Henry E. Bliss Commonwealth Edison Company Dresden Nuclear Power Station Units 2 and 3

cc:

Michael I. Miller, Esq. Sidley and Austin One First National Plaza Chicago, Illinois 60603

Mr. J. Eenigenburg Plant Superintendent Dresden Nuclear Power Station Rural Route #1 Morris, Illinois 60450

U. S. Nuclear Regulatory Commission Resident Inspectors Office Dresden Station Rural Route #1 Morris, Illinois 60450

Chairman Board of Supervisors of Grundy County Grundy County Courthouse Morris, Illinois 60450

Regional Administrator Nuclear Regulatory Commission, Region III 799 Roosevelt Road, Bldg. #4 Glen Ellyn, Illinois 60137

Mr. Michael E. Parker, Chief Division of Engineering Illinois Department of Nuclear Safety 1035 Outer Park Drive, 5th Floor Springfield, Illinois 62704

#### UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555



## COMMONWEALTH EDISON COMPANY

## DOCKET NO. 50-237

# DRESDEN NUCLEAR POWER STATION, UNIT NO. 2

## AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 101 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 August 31, 1988 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 Provisional Operating License No. DPR-19 is hereby amended to read as follows:

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## B. Technical Specifications

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The Technical Specifications contained in Appendix A, as revised through Amendment No. 101, 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 to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Daniel R. Muller, Director Project Directorate III-2 Division of Reactor Projects - III, IV, V and Special Projects

Attachment: Changes to the Technical Specifications

Date of Issuance: October 26, 1988

# ATTACHMENT TO LICENSE AMENDMENT NO. 101

# PROVISIONAL OPERATING LICENSE 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
3/4.5-1	3/4.5-1
3/4.5-4	3/4.5-4
3/4.5-5	3/4.5-5
3/4.5-12	3/4.5-12
	3/4.5-12a
3/4.5-13	3/4.5-13

## 3.5 LIMITING CONDITION FOR OPERATION CORE AND CONTAINMENT COOLING SYSTEMS

#### Applicability:

Applies to the operational status of the emergency cooling subsystems.

#### Objective:

To assure adequate cooling capability for heat removal in the event of a loss of coolant accident or isolation from the normal reactor heat sink.

#### Specification:

A. Core Spray and LPCI Subsystems

 Except as specified in 3.5.A.2, 3.5.A.3, and 3.5.F.3 through 3.5.F.6 below, both core spray subsystems shall be operable whenever irradiated fuel is in the reactor vessel. DRESDEN II DPR-19 Amendment No. 82, 101

4.5 <u>SURVEILLANCE REQUIREMENT</u> CORE AND CONTAINMENT COOLING SYSTEMS

## Applicability:

Applies to periodic testing of the emergency cooling subsystems.

#### Objective:

To verify the operability of the emergency cooling subsystems.

#### Specification:

- A. Surveillance of the Core Spray and LPCI Subsystems shall be performed as follows:
  - 1. Core Spray Subsystem Testing:

Item	Frequency
a. Simulated Automatic Actuation Test	Each Refueling Outage
<ul> <li>b. Flow Rate Test Core spray pumps shall deliver at least 4500 gpm against a system head cor-</li> </ul>	After pump maintenance and every 3 months

responding

# 3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

for any reason, reactor operation is permissible only during the succeeding seven days unless it is sooner made operable, provided that during such seven days all active com ponents of both core spray subsystems, the containment cooling subsystem (including 2 LPCI pumps) and the diesel generators required for operation of such components if no external source of power were available shall be operable.

- 6. Containment cooling spray loops are required to be operable when the reactor water temperature is greater than 212°F except that a maximum of one drywell spray loop may be inoperable for thirty days when the reactor water temperature is greater than 212°F.
- 7. If the requirements of 3.5.A cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours. Subsequently, the reactor may be placed in Refuel in accordance with 3.5.F.3 through 3.5.F.6.

DRESDEN II DPR-19 Amendment No. 14, 82, 98, 101

4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

> the containment cooling subsystem, shall be demonstrated to be operable immediately and daily thereafter.

6. During each five year period an air test shall be performed on the drywell spray headers and nozzles.

3/4.5-4

3687a 3123A

DRESDEN II DPR-19 Amendment No. 34, 82, 101

- 3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)
- B. Containment Cooling Subsystem
  - Except as specified in 3.5.B.2, 3.5.B.3, and 3.5.F.3 through 3.5.F.6 below, both containment cooling subsystem loops shall be operable whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F.
- 4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)
  - B. Surveillance of the Containment Cooling Subsystem shall be performed as follows:
    - Containment Cooling Service Water Subsystem Testing:

Item Frequency

- a. Pump & Once/3 Valve months Operability
- b. Flow Rate After pump Test. Each maintenance containment and every cooling 3 months water pump shall deliver at least 3500 gpm against a pressure of 180 psig.
- 2. When it is determined that one containment cooling service water pump is inoperable, the remaining components of that subsystem and the other containment cooling subsystem shall be demonstrated to be operable immediately and daily thereafter.

2. From and after the date that one of the containment cooling service water subsystem pumps is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding thirty days unless such pump is sooner made operable, provided that during such thirty days all other active components of the containment cooling subsystem are operable.

3/4.5-5

DRESDEN II DPR-19 Amendment No. 20, 58, 82, 101

#### 3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

- When irradiated fuel is 3. in the reactor vessel and the reactor is in cold shutdown or refuel conditions, at least two of the following pumps, with each having an operable flow path capable of taking suction from the suppression pool or the condensate storage tank and transferring the water to the reactor vessel, shall be operable except as specified in 3.5.F.4, 3.5.F.5 and 3.5.F.6 below:
  - a. Two Core Spray pumps or,
  - b. Two Low Pressure Coolant Injection pumps or,
  - c. One Core Spray pump and one Low Pressure Coolant Injection pump.
- 4. With one of the pumps and/or associated flow paths required by 3.5.F.3 inoperable, restore at least two pumps and associated flow paths to operable status within 4 hours or suspend all operations with a potential for draining the reactor vessel.
- 5. With both of the pumps and/or associated flow paths required by 3.5.F.3 inoperable, suspend core alterations and all operations with a potential for draining the reactor vessel. Restore at least one pump and associated flow path to operable status within 4 hours or establish secondary containment integrity within the next 8 hours.

4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

DRESDEN II DPR-19 Amendment No. 101

# 3.5 LIMITING CONDITION FOR OPERATION (Cont'd.)

- 6. When irradiated fuel is in the reactor vessel and the reactor is in the cold shutdown or refuel condition. all low pressure core and containment cooling subsystems may be inoperable provided the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed, the fuel pool water level is maintained above the low alarm point, and the reactor cavity water temperature is below 140°F.
- 7. When irradiated fuel is in the reactor vessel and the reactor is in the refuel condition, the torus may be drained completely and control rod drive maintenance performed provided that the spent fuel pool gates are open, the fuel pool water level is maintained above the low level alarm point. and the minimum total condensate storage reserve is maintained at 230,000 gallons, and provided that not more than one control rod drive housing is open at one time, the control rod drive housing is blanked following removal of the control rod drive, no work is being performed in the reactor vessel while the housing is open and a special flange

4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

3687a 3123A 3/4.5-12a

DRESDEN II DPR-19 Amendment No. 20, 58, 92, 101

3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

> is available which can be used to blank an open housing in the event of a leak.

- I 8. When irradiated fuel is in the reactor and the vessel head is removed, work that has the potential for draining the vessel may be performed with less than 112,000 ft<sup>3</sup> of water in the suppression pool, provided that: (1) the total volume of water in the suppression pool, dryer separator above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft<sup>3</sup>; (2) the fuel storage pool gate is removed; (3) the low pressure coolant injection and core spray systems are operable as specified in 3.5.F.3, 3.5.F.4 and 3.5.F.5; and (4) the automatic mode of the drywell sump pumps is disabled.
  - H. Maintenance of Filled Discharge Pipe

Whenever core spray, LPCI, or HPCI ECCS are required to be operable, the discharge piping from the pump discharge 4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

> H. Maintenance of Filled Discharge Pipe

> > The following surveillance requirements shall be adhered to, to assure that the discharge piping of the core spray,



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

## COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

# DRESDEN NUCLEAR POWER STATION, UNIT NO. 3

# AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 97 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 August 31, 1988 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.
- 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. 97, 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 to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION

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Daniel R. Muller, Director Project Directorate III-2 Division of Reactor Projects - III, IV, V and Special Projects

Attachment: Changes to the Technical Specifications

Date of Issuance: October 26, 1988

# ATTACHMENT TO LICENSE AMENDMENT NO. 97

# FACILITY OPERATING LICENSE DPR-25

# DOCKET NO. 50-249

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
3/4.5-1 3/4.5-4 3/4.5-5 3/4.5-12	3/4.5-1 3/4.5-4 3/4.5-5 3/4.5-12
3/4.5-13	3/4.5-12a 3/4.5-13

# 3.5 LIMITING CONDITION FOR OPERATION

## CORE AND CONTAINMENT COOLING SYSTEMS

#### Applicability:

Applies to the operational status of the emergency cooling subsystems.

#### Objective:

To assure adequate cooling capability for heat removal in the event of a loss of coolant accident or isolation from the normal reactor heat sink.

## Specification:

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A. Core Spray and LPCI Subsystems

 Except as specified in 3.5.A.2, 3.5.A.3, and 3.5.F.3 through 3.5.F.6 below, both core spray subsystems shall be operable whenever irradiated fuel is in the reactor vessel. DRESDEN III DPR-25 Amendment No. 75, 97

#### 4.5 SURVEILLANCE REQUIREMENT

## CORE AND CONTAINMENT COOLING SYSTEMS

#### Applicability:

Applies to periodic testing of the emergency cooling subsystems.

#### Objective:

To verify the operability of the emergency cooling subsystems.

### Specification:

- A. Surveillance of the Core Spray and LPCI Subsystems shall be performed as follows:
  - Core Spray Subsystem Testing:

Item	1	Frequency
a.	Simulated Automatic Actuation Test	Each Refueling Outage
b.	Flow Rate Test Core spray pumps shall deliver at least 4500 gpm against a system head cor- responding	After pump maintenance and every 3 months

DRESDEN III DPR-25 Amendment No. 4, 75, 90, 97

## 3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

for any reason, reactor operation is permissible only during the succeeding seven days unless it is sooner made operable, provided that during such seven days all active components of both core spray subsystems. the containment cooling subsystem (including 2 LPCI pumps) and the diesel generators required for operation of such components if no external source of power were available shall be operable.

- 6. Containment cooling spray loops are required to be operable when the reactor water temperature is greater than 212°F except that a maximum of one drywell spray loop may be inoperable for thirty days when the reactor water temperature is greater than 212°F.
- 7. If the requirements of 3.5.A cannot be met, an orderly shutdown of the reactor shall be initiated and the reactor shall be in the Cold Shutdown condition within 24 hours. Subsequently, the reactor may be placed in Refuel in accordance with 3.5.F.3 through 3.5.F.6.

#### 4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

the containment cooling subsystem, shall be demonstrated to be operable immediately and daily thereafter.

 During each five year period an air test shall be performed on the drywell spray headers and nozzles. 3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

- B. Containment Cooling Subsystem
  - Except as specified in 3.5.B.2, 3.5.B.3, and 3.5.F.3 through 3.5.F.6 below, both containment cooling subsystem loops shall be operable whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F.

2. From and after the date that one of the containment cooling service water subsystem pumps is made or found to be inoperable for any reason, reactor operation is permissible only during the succeeding thirty days unless such pump is sooner made operable, provided that during such thirty days all other active components of the containment cooling subsystem are operable.

DRESDEN III DPR-25 Amendment No. 23, 75, 97

- 4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)
  - B. Surveillance of the Containment Cooling Subsystem shall be performed as follows:
    - Containment Cooling Service Water Subsystem Testing:

#### Item

b.

#### Frequency

a. Pump & Once/3 Valve months Operability

Flow Rate

After pump maintenance and every 3 months

- Test. Each r containment a cooling 3 water pump shall deliver at least 3500 gpm against a pressure of 180 psig.
- 2. When it is determined that one containment cooling service water pump is inoperable, the remaining components of that subsystem and the other containment cooling subsystem shall be demonstrated to be operable immediately and daily thereafter.

DRESDEN III DPR-25 Amendment No. 18, 28, 75, 97

# 3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

- 3. When irradiated fuel is in the reactor vessel and the reactor is in cold shutdown or refuel conditions, at least two of the following pumps, with each having an operable flow path capable of taking suction from the suppression pool or the condensate storage tank and transferring the water to the reactor vessel, shall be operable except as specified in 3.5.F.4, 3.5.F.5 and 3.5.F.6 below:
  - a. Two Core Spray pumps or,
  - b. Two Low Pressure Coolant Injection pumps or,
  - c. One Core Spray pump and one Low Pressure Coolant Injection pump.
- 4. With one of the pumps and/or associated flow paths required by 3.5.F.3 inoperable, restore at least two pumps and associated flow paths to operable status within 4 hours or suspend all operations with a potential for draining the reactor vessel.
- 5. With both of the pumps and/or associated flow paths required by 3.5.F.3 inoperable, suspend core alterations and all operations with potential for draining the reactor vessel. Restore at least one pump and associated flow path to operable status within 4 hours or establish secondary containment integrity within the next 8 hours.

4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

DRESDEN III DPR-25 Amendment No. 97

## 3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

- 6. When irradiated fuel is in the reactor vessel and the reactor is in the cold shutdown or refuel condition. all low pressure core and containment cooling subsystems may be inoperable provided the reactor vessel head is removed, the cavity is flooded, the spent fuel pool gates are removed. the fuel pool water level is maintained above the low level alarm point, and the reactor cavity water temperature is below 140°F.
- When irradiated fuel is 7. in the reactor vessel and the reactor is in the refuel condition. the torus may be drained completely and control rod drive maintenance performed provided that the spent fuel pool gates are open, the fuel pool water level is maintained above the low level alarm point, and the minimum total condensate storage reserve is maintained at 230,000 gallons, and provided that not more than one control rod drive housing is open at one time, the control rod drive housing is blanked following removal of the control rod drive, no work is being performed in the reactor vessel while the housing is open and a special flange is

4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

DRESDEN III DPR-25 Amendment No. 18, 75, 97

3.5 <u>LIMITING CONDITION FOR OPERATION</u> (Cont'd.)

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available which can be used to blank an open housing in the event of a leak.

- When irradiated fuel is 8. in the reactor and the vessel head is removed, work that has the potential for draining the vessel may be performed with less than 112,000 ft<sup>3</sup> of water in the suppression pool, provided that: 1) the total volume of water in the suppression pool, dryer separator above the shield blocks, refueling cavity, and the fuel storage pool above the bottom of the fuel pool gate is greater than 112,000 ft<sup>3</sup>; 2) the fuel storage pool gate is removed; 3) the low pressure coolant injection and core spray systems are operable as specified in 3.5.F.3, 3.5.F.4 and 3.5.F.5; and 4) the automatic mode of the drywell sump pumps is disabled.
- H. Maintenance of Filled Discharge Pipe

Whenever core spray, LPCI, or HPCI ECCS are required to be operable, the discharge piping from the pump discharge 4.5 <u>SURVEILLANCE REQUIREMENT</u> (Cont'd.)

> H. Maintenance of Filled Discharge Pipe

> > The following surveillance requirements shall be adhered to, to assure that the discharge piping of the core spray,



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

## SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

#### SUPPORTING AMENDMENT NO.101 TO PROVISIONAL OPERATING LICENSE NO. DPR-19

#### AND AMENDMENT NO. 97 TO FACILITY OPERATING LICENSE NO. DPR-25

## COMMONWEALTH EDISON COMPANY

#### DRESDEN NUCLEAR POWER STATION, UNIT NOS. 2 AND 3

#### DOCKET NOS. 50-237 AND 50-249

#### **1.0 INTRODUCTION**

By letter dated August 31, 1988, the Commonwealth Edison Company (CECo or the licensee) proposed to amend Appendix A of Provisional Operating License (POL) No. DPR-19 and Facility Operating License No. DPR-25. The letter provided information to support changes to Section 3.5.F of the Technical Specifications.

The present Dresden Technical Specification 3.5.F.3 allows all low pressure core and containment cooling systems to be inoperable while in cold shutdown provided no work is being done which has the potential for draining the reactor vessel. However, the present requirements do not address specific Emergency Core Cooling Systems (ECCS) operability requirements during the cold shutdown or refueling operational modes.

The proposed change will rewrite the present Technical Specification 3.5.F.3 and replace it with more prescriptive requirements for ECCS operability during cold shutdown and refueling. The proposed Technical Specification will be applicable when the reactor is in the cold shutdown or refueling conditions with irradiated fuel in the reactor vessel and will require at least two pumps of low pressure ECCS to be operable along with an operable flow path for each pump taking suction from the suppression pool or the condensate storage tank and transferring water to the reactor vessel. These pumps can be two Core Spray pumps, two Low Pressure Coolant Injection (LPCI) pumps, or a Core Spray pump and a LPCI pump. Proposed Technical Specifications 3.5.F.4 and 3.5.F.5 will provide action requirements if one or both of the required ECCS are inoperable. Proposed Technical Specification 3.5.F.6 allows all low pressure core and containment cooling subsystems to be inoperable when the reactor is in the cold shutdown or refueling conditions and irradiated fuel is in the reactor vessel, provided that the reactor vessel head is removed, the reactor cavity is flooded, and the spend fuel pool water level is main tained above the low level alarm point with the pool to cavity gates removed.

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#### 2.0 EVALUATION

The present Dresden Technical Specifications require LPCI and both Core Spray subsystems to be operable whenever irradiated fuel is in the reactor vessel with an exception being that all the subsystems may be inoperable in cold shutdown provided no work is being done which has the potential for draining the reactor vessel. Also, containment cooling is required whenever irradiated fuel is in the reactor vessel and reactor coolant temperature is greater than 212°F with the same exception as for the LPCI and Core Spray subsystems while in the cold shutdown mode. The proposed change to Technical Specification 3.5.F.3 would require at least two low pressure ECCS pumps to be operable when irradiated fuel is in the reactor vessel and the reactor is in the cold shutdown or refueling mode of operation. In addition, three new sections have been added to Section 3.5.F of the Technical Specifications (Sections 3.5.F.4 thru 3.5.F.6) and the remaining sections renumbered.

The proposed action requirements of Technical Specification 3.5.F.4 would not allow operations with a potential for draining the reactor vessel to continue if one of the required pumps and/or associated flow paths of ECCS is inoperable for more than 4 hours. Proposed action requirements in Technical Specification 3.5.F.5 apply if both of the required ECCS pumps and/or flow paths are inoperable. With both of the ECCS pumps and/or flow path(s) inoperable, core alterations and all operations with a potential for draining the reactor vessel would be suspended. At least one of the required ECCS pumps and associated flow path would have to be returned to operable status within 4 hours or secondary containment integrity would have to be established within the next 8 hours. Proposed Specification 3.5.F.6 is similar to present Technical Specification 3.5.F.3 in that all low pressure core and containment cooling subsystems are allowed to be inoperable in cold shutdown. However, the proposed change would add the refueling condition and also include the restrictions of having the reactor vessel head removed, the cavity flooded, the spent fuel pool gates removed, and fuel pool water level maintained above the low level alarm point.

The proposed changes to the Dresden Technical Specifications would specifically identify the operability requirements for the low pressure ECCS equipment and containment cooling subsystem during both the cold shutdown and the refueling modes of operation. The current Technical Specifications only permit the low pressure ECCS equipment and containment cooling subsystems to be inoperable provided no work is being done which has the potential for draining the reactor vessel. Under the proposed changes, any combination of two core spray pumps or low pressure coolant inspection pumps would be required to be operable during the cold shutdown or refueling modes of operation. Although this is less than required by the current Technical Specifications since the primary system is not pressurized in the cold shutdown or refueling modes and the decay heat generation rate is significantly less than immediately following reactor power operation, the ECCS water makeup requirements are also significantly less. The 4 hours permitted by the proposed Technical Specifications to restore to operability one of the two required ECCS pumps without suspending operations is reasonable since it is of sufficiently short duration that the probability of an accident that would result in the draining of the reactor vessel during this period is small. Similarly the 4 hours permitted to restore operability of one of the ECCS pumps, if all are inoperable, before requiring secondary containment integrity to be established within the next 8 hours, is also reasonable considering the fact all operations with a potential for draining the reactor are immediately suspended.

The proposed Technical Specification changes include the refueling mode which is not specifically addressed in the current Technical Specifications and additional restrictions that ensure that with all the low pressure ECCS and containment cooling subsystem inoperable during the cold shutdown and refueling operational modes the potential for inadvertently draining the reactor vessel has been eliminated.

Based on its review of the information provide by CECo, the staff has determined the following:

- The proposed Technical Specification changes maintain the necessary ECCS equipment available to provide makeup water to the reactor vessel in the cold shutdown and refueling operational modes;
- (2) The proposed Technical Specification action conditions ensure that operations with a potential for draining the reactor vessel, or core alterations are not performed without ECCS makeup capability or the reactor cavity maintained above the fuel pool low level alarm point;
- (3) The proposed Technical Specification changes assure that secondary containment integrity is established if two ECCS pumps and associated flow paths are not available;
- (4) Although the proposed Technical Specifications would allow fewer ECCS systems to be required operable in the cold shutdown and refueling operational modes, the present Technical Specifications are overly restrictive since they do not reflect the smaller water makeup requirements for cold shutdown and refueling compared to pressurized power operational conditions. The necessary ECCS water makeup capability for cold shutdown and refueling operational modes is being maintained and additional restrictions are being imposed by CECO before taking all the low pressure ECCS and containment cooling systems out of service; and
- (5) The proposed Technical Specifications follow the Standard Plant and later BWR operating plant (i.e. LaSalle) requirements for ECCS systems during the same operational modes.

Based on the above conclusions, the staff has determined that the Technical Specification changes proposed by CECo for Dresden Unit Nos. 2 and 3 for the cold shutdown and refueling operational modes are acceptable.

## 3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes to 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 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these 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 nor environmental assessment need be prepared in connection with the issuance of these amendments.

#### 4.0 CONCLUSION:

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 in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security nor to the health and safety of the public.

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Dated: October 26, 1988