

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

#### COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-237

### DRESDEN NUCLEAR POWER STATION, UNIT 2

### AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 108 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 March 28, 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 Provisional Operating License No. DPR-19 is hereby amended to read as follows:
  - B. <u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 108, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

John W. Craig, Director Project Directorate III-2 Division of Reactor Projects - III, IV, V and Special Projects Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: November 21, 1989

# PROVISIONAL OPERATING LICENSE DPR-19

### **BOCKET 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
3/4.2-10	3/4.2-10
B 2/4.2-33	E 3/4.2-33
	B 3/4.2-33a

TABLE 3.2.2

INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Min. No. of Operable Inst Channels per Irip System (1)	Irip function	Trip Level Setting	Remarks
2	Reactor Low Low Water Level	B4" (plus 4, minus 0 inches) above top of active fuel (5)	1. In conjunction with low reactor pressure initiates core spray and LPC1. 2. In conjunction with high dry-well pressure, 120 sec. time delay, and low pressure core cooling interlock initiates auto blowdown. 3. Initiates HPC1 and SBG15. 4. Initiates starting of diesel generators.
,	High Drywell Pressure (2), (3)	Less than or equal to 2 PSIG	Initiates core spray LPCI, HPCI, and SBCTS.     In conjunction with low low water level 120 sec. time dolay and low pressure core cooling interlock initiates auto blowdown.     Initiates starting of diesel generators.
1	Reactor Low Pressure	Greater than or equal to 300 PSIG & less than or equal to 350 PSIG	Permissive for opening core spray and LPC1 admitsion valves.     In conjunction with low low reactor water level initiates core spray and LPC1.
1(4)	Containment Spray Interlock 2/3 Core Height	Greater than or equal to 2/3 core height	Prevents inadvertent operation of containments of spray during accident conditions.
2(4)	Containment High Pressure	Greater than or equal to 0.5 P51G & less than or equal to 1.5 P51G	Prevents inadvertent operation of containment spray during accident conditions.
1	Timer Auto Blowdown	Less than or equal to 120 seconds	In conjunction with low low reactor water level, high dry-well pressure and low pressure core cooling interlock initiates
2	Low Pressure Core Cooling Pump Discharge Pressure	Greater than or equal to 50 PSIG & less than or equal 100 PSIG	<ul> <li>Defers APR actuation pending confirmation of low pressure core cooling system operation.</li> </ul>
2/Bus	4 KV loss of Voltage Emergency Buses	Trip on 2930 volts plus or minus 5% decreasing voltage	Initiates starting of diesel generators.     Permissive for starting ECCS pumps.     Removes nonessential loads from buses.     Trips emergency bus normal feed breakers.
2	Sustained High Reactor Pressure	Less than or equal to 1070 PSIG for 15 seconds	Initiates isolation condenser.
2/Bus	Degraded Voltage on 4 KV Emergency Buses	Greater than or equal to 3708 volts (equals 3784 volts less 2% tolerance after less than or equal to 5 minutes (plus 5% tolerance) with a 7 second (plus or minus 20%) inherent time delay	) degraded voltage not corrected after time delay.

Notes: (See next page)

### 3.2 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

For effective emergency core cooling for small pipe breaks, the HPCI system must function since reactor pressure does not decrease rapidly enough to allow either core spray or LPCI to operate in time. The automatic pressure relief function is provided as a backup to the HPCI in the event the HPCI does not operate. The arrangement of the tripping contacts is such as to provide this function when necessary and minimize spurious operation. The trip settings given in the specification are adequate to assure the above criteria are met (Ref. SAR Section 6.2.6.3). The specification preserves the effectiveness of the system during periods of maintenance, testing or calibration and also minimizes the risk of inadvertent operation; i.e., only one instrument channel out of service.

Two radiation monitors are provided on the refueling floor which initiate isolation of the reactor building and operation of the standby gas treatment systems. The trip logic is one out of two. Trip settings of less than or equal to 100 mR/hr for the monitors on the refueling floor are based upon initiating normal ventilation isolation and standby gas treatment system operation so that none of the activity released during the refueling accident leaves the reactor building via the normal ventilation stack but that all the activity is processed by the standby gas treatment system.

The instrumentation which is provided to monitor the post accident condition is listed in Table 3.2.6. The instrumentation listed and the limiting conditions for operation on these systems ensure adequate monitoring of the containment following a loss-of-coolant accident. Information from this instrumentation will provide the operator with a detailed knowledge of the conditions resulting from the accident. Based on this information he can make logical decisions regarding post accident recovery.

The specifications allow for post accident instrumentation to be out of service for a period of 30 days. This period is based on the fact that several diverse instruments are available for guiding the operator should an accident occur, on the low probability of an instrument being out of service and an accident occurring in the 30-day period, and on engineering judgment.

The radioactive liquid and gaseous effluent instrumentation is provided to monitor the release of radioactive materials in liquid and gaseous effluents during releases. The alarm setpoints for the instruments are provided to ensure that the alarms will occur prior to exceeding the limits of 10 CFR 20.

The relay setting for 4KV emergency bus loss of voltage is chosen to give positive indication of the need to start the diesel generator,

### 3.2 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

without being affected by normal voltage fluctuations due to pumps starting. Reset of the relay, approximately 11% above the trip point, indicates that the diesel generator has restored bus voltage and will accept ECCS loads. The reset signal provides a permissive for starting ECCS pumps.

The setting for 4KV emergency bus degraded voltage is chosen to detect sustained degraded voltage which may cause equipment damage, while preventing trips caused by voltage fluctuations. The reset point for degraded voltage indicates restoration of normal bus voltage.



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

#### COMMONWEALTH EDISON COMPANY

DOCKET NO. 50-249

### DRESDEN NUCLEAR POWER STATION, UNIT 3

### AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 103 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 March 28, 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 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. 103, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

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John W. Craig, Director
Project Directorate III-2
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: November 21, 1989

# 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
3/4.2-10		3/4.2-10
B 3/4.2-33	В	3/4.2-33
	В	3/4.2-338

TABLE 3.2.2
INSTRUMENTATION THAT INITIATES OR CONTROLS THE CORE AND CONTAINMENT COOLING SYSTEMS

Min. No. of Operable Inst. Channels per Irip System (1)	Irip function	Trip Level Setting	Rem	arks
(2)	Reactor Low Low Water Level	B4" (plus 4, minus 0 inches) above top of active fuel (5)	1. 2. 3.	In conjunction with low reactor pressure initiates core spray and LPCI. In conjunction with high dry-well pressure, 120 sec. time delay, and low pressure core cooling interlock initiates auto blowdown. Initiates HPCI and SBGTS. Initiates starting of diesel generators.
2	High Drywell Pressure (2), (3)	Less than or equal to 2 PS1G	1. 2.	Initiates core spray LPCI, HPCI, and SBGTS In conjunction with low low water level 120 sec. time delay and low pressure core cooling interlock initiates auto blowdown. Initiates starking of diesel generators.
1	Reactor Low Pressure	Greater than or equal to 300 PSIG & less than or equal to 350 PSIG	2.	Permissive for opening core spray and LPCI admission valves. In conjunction with low low reactor water level initiates core spray and LPCI.
1(4)	Containment Spray Interlock 2/3 Core Height	Greater than or equal to 2/3 core height		Prevents inadvertent operation of con- tainment spray during accident conditions.
2(4)	Containment High Pressure	Greater than or equal to 0.5 PSIG & less than or equal to 1.5 PSIG		events inadvertent operation of con- sent spray during accident conditions.
1	Timer Auto Blowdown	Less than or equal to 120 seconds		In conjunction with low low reactor water level, high dry-well pressure and low pressure core cooling interlock initiates auto blowdown.
2	Low Pressure Core Cooling Pump Discharge Pressure	Greater than or equal to 50 PSIG & less than or equal 100 PSIG	•	Defers APR actuation pending confirmation low pressure core cooling system operation
2/Bus	4 KV Loss of Voltage Emergency Buses	Trip on 2930 volts plus or minus 5% decreasing voltage	1. 2. 3. 4.	Initiates starting of diesel generators. Permissive for starting ECCS pumps. Removes nonessential loads from buses. Trips emergency bus normal feed breakers.
2	Sustained High Reactor Pressure	Less than or equal to 1070 PSIG for 15 seconds		Initiates isolation condenser.
2/Bus	Degraded Voltage on 4 KV Emergency Buses	Greater than or equal to 3708 volts (equals 3784 volts less 2% tolonce) after less than equal to 5 minutes (pl. 5% tolerance) with a 7 second (plus or minus 20%) inherent time del	or	Initiates alarm and picks up time delay relay. Diesel generator picks up load if degraded voltage not corrected after time delay.

Notes: (See next page)

### 3.2 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

For effective emergency core cooling for small pipe breaks, the HPCI system must function since reactor pressure does not decrease rapidly enough to allow either core spray or LPCI to operate in time. The automatic pressure relief function is provided as a backup to the HPCI in the event the HPCI does not operate. The arrangement of the tripping contacts is such as to provide this function when necessary and minimize spurious operation. The trip settings given in the specification are adequate to assure the above criteria are met. (Ref. Section 6.2.6.3 SAR.) The specification preserves the effectiveness of the system during periods of maintenance, testing, or calibration, and also minimizes the risk of inadvertent operation; i.e., only one instrument channel out of service.

Two radiation monitors are provided on the refueling floor which initiate isolation of the reactor building and operation of the standby gas treatment systems. The trip logic is one out of two. Trip settings of less than or equal to 100 mR/hr for the monitors on the refueling floor are based upon initiating normal ventilation isolation and standby gas treatment system operation so that none of the activity released during the refueling accident leaves the reactor building via the normal ventilation stack but that all the activity is processed by the standby gas treatment system.

The instrumentation which is provided to monitor the post accident condition is listed in Table 3.2.6. The instrumentation listed and the limiting conditions for operation on these systems ensure adequate monitoring of the containment following a loss-of-coolant accident. Information from this instrumentation will provide the operator with a detailed knowledge of the conditions resulting from the accident. Based on this information he can make logical decisions regarding post accident recovery.

The specifications allow for post accident instrumentation to be out of service for a period of 30 days. This period is based on the fact that several diverse instruments are available for guiding the operator should an accident occur, on the low probability of an instrument being out of service and an accident occurring in the 30-day period, and on engineering judgment.

The radioactive liquid and gaseous effluent instrumentation is provided to monitor the release of radioactive materials in liquid and gaseous effluents during releases. The alarm setpoints for the instruments are provided to ensure that the alarms will occur prior to exceeding the limits of 10 CFR 20.

The relay setting for 4KV emergency bus loss of voltage is chosen to give positive indication of the need to start the diesel generator, without being affected by normal voltage fluctuations due to pumps starting.

DRESDEN III DPR-25 Amendment No. 103

### 3.2 LIMITING CONDITION FOR OPERATION BASES (Cont'd.)

Reset of the relay, approximately 11% above the trip point, indicates that the diesel generator has restored bus voltage and will accept ECCS Loads. The reset signal provides a permissive for starting ECCS pumps.

The setting for 4KV emergency bus degraded voltage is chosen to detect sustained degraded voltage which may cause equipment damage, while preventing trips caused by voltage fluctuations. The reset point for degraded voltage indicates restoration of normal bus voltage.