

December 12, 1983

Docket Nos. 50-237/249
LS05-83-12-009

Mr. Dennis L. Farrar
Director of Nuclear Licensing
Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Dear Mr. Farrar:

SUBJECT: TMI ITEM II.K.3.15 - ISOLATION OF HPCI

Dresden Nuclear Power Station, Unit Nos. 2 and 3

The Commission has issued the enclosed Amendment No. 78 to Provisional Operating License No. DPR-19 and Amendment No. 69 to Facility Operating License No. DPR-25 for Dresden Nuclear Power Station, Unit Nos. 2 and 3, respectively. These amendments consist of changes to the Technical Specifications in response to your application dated April 25, 1983.

The amendments approve Technical Specification provisions which specify the time-delay settings for high steam flow for the HPCI systems, and are designed to prevent inadvertent isolation of these systems.

A Notice of Consideration of Issuance of Amendment to Licenses and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related to the requested action was published in the Federal Register on September 21, 1983 (48 FR 43131). No request for hearing was received and no comments were received.

A copy of our related Safety Evaluation is also enclosed. This action will appear in the Commission's Monthly Notice Publication in the Federal Register.

Sincerely,

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosures:

- 1. Amendment No. 78 to DPR-19
- 2. Amendment No. 69 to DPR-25
- 3. Safety Evaluation

cc w/enclosure:
See next page

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Mr. Dennis L. Farrar

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Mr. Doug Scott
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

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
ATTN: Regional Radiation Representative
230 South Dearborn Street
Chicago, Illinois 60604

James G. Keppler, Regional Administrator
Nuclear Regulatory Commission, Region III
799 Roosevelt Street
Glen Ellyn, Illinois 60137

Mr. Gary N. Wright, Manager
Nuclear Facility Safety
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 2

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 78
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 April 25, 1983 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;
 - 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:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 78, 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


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:

1. Changes to the Technical Specifications

Date of Issuance: December 12, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 78
PROVISIONAL OPERATING LICENSE NO. DPR-19
DOCKET NO. 50-237

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. These pages contain the captioned amendment number and a vertical line indicating the change.

Replace Pages

38
39
44
45

TABLE 3.2.1

INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION FUNCTIONS

Minimum No. of Operable Inst. Channels per Trip System (1)	Instruments	Trip Level Setting	Action (3)
2	Reactor Low Water	$\geq 144''$ above top of active fuel*	A
2	Reactor Low Low Water	$\geq 84''$ above top of active fuel*	A
2	High Drywell Pressure	≤ 2 psig rated (4), (5)	A
2 (2)	High Flow Main Steam Line	$\leq 120\%$ of rated steam flow	B
2 of 4 in each of 4 sets	High Temperature Main Steam Line Tunnel	$\leq 200^\circ\text{F}$	B
2	High Radiation Main Steam Line Tunnel (6)	≤ 3 times full power background (see note 7)	B
2	Low Pressure Main Steam Line High Flow Iso Condenser Line	≥ 850 psig	B
1	Steamline Side	≤ 20 psi diff. on steamline side	C
1	Condensate Return Side	$\leq 32''$ water diff. on condensate return side	C
2	High Flow HPCI Steam Line	$\leq 150''$ water (8)	D
4	High Temperature HPCI Steam Line Area	$\leq 200^\circ\text{F}$	D

* Top of active fuel is defined as 360'' above vessel zero for all water levels used in the LOCA Analyses (See Bases 3.2).

- NOTES: 1. Whenever primary containment integrity is required there shall be two operable or tripped trip systems for each function, except for low pressure main steamline which only need be available in the RUN position.
2. Per each steamline.
3. Action: If the first column cannot be met for one of the trip systems, that trip system shall be tripped.

TABLE 3.2.1 (cont)

If the first column cannot be met for both trip systems, the appropriate actions listed below shall be taken:

- A. Initiate an orderly shutdown and have reactor in cold shutdown condition in 24 hours.
 - B. Initiate an orderly load reduction and have reactor in Hot Standby within 8 hours.
 - C. Close isolation valves in isolation condenser system.
 - D. Close isolation valves in HPCI subsystem.
4. Need not be operable when primary containment integrity is not required.
 5. May be bypassed when necessary during purging for containment inerting and de-inerting.
 6. An alarm setting of 1.5 times normal background at rated power shall be established to alert the operator to abnormal radiation levels in the primary coolant.
 7. Due to addition of hydrogen to the primary coolant, the Main Steam Line Radiation monitor setting will be less than or equal to 3 times full power background without hydrogen addition for all conditions except for greater than 20% power with hydrogen being injected during which the Main Steam Line Radiation trip setting will be less than or equal to 3 times full power background with hydrogen addition. Required changes in Main Steam Line Radiation Monitor trip setting will be made within 24 hours except during controlled power descensions at which time the setpoint change will be made prior to going below 20% power. If due to a recirculation pump trip or other unanticipated power reduction event the reactor is below 20% power without the setpoint change, control rod motion will be suspended until the necessary trip setpoint adjustment is made.
 8. Verification of time delay setting between 3 and 9 seconds shall be performed during each refueling outage.

TABLE 4.2.1 (cont)

<u>Instrument Channel</u>	<u>Instrument Functional Test (2)</u>	<u>Calibration (2)</u>	<u>Instrument Check (2)</u>
<u>ISOLATION CONDENSER ISOLATION</u>			
1. Steam Line High Flow	(1)	Once/3 Months	None
2. Condensate Line High Flow	(1)	Once/3 Months	None
<u>HPCI ISOLATION</u>			
1. Steam Line High Flow	(1) (11)	Once/3 Months (11)	None
2. Steam Line Area High Temp.	Refueling Outage	Refueling Outage	None
3. Low Reactor Pressure	(1)	Once/3 Months	None
<u>REACTOR BUILDING VENTILATION SYSTEM VIOLATION AND STANDBY GAS TREATMENT SYSTEM INITIATION</u>			
1. Ventilation Exhaust Duct Radiation Monitors	(1)	Once/3 Months	Once/Day
2. Refueling Floor Radiation Monitors	(1)	Once/3 Months	Once/Day
<u>STEAM JET-AIR EJECTOR OFF-GAS ISOLATION</u>			
1. Radiation Monitors	(1) (3)	Once/3 Months (4)	Once/Day
<u>CONTAINMENT MONITORING</u>			
1. Pressure			Once/Day
a. -5 in. Hg to +5 psig Indicator	None	Once/3 Months	None
b. 0 to 75 psig Indicator	None	Once/3 Months	Once/Day
2. Temperature	None	Refueling Outage	None
3. Drywell-Torus Differential Pressure (5) (6) (0-3 psid)	None	Once/6 Months (two channels operable) Once/Month (one channel operable)	None
4. Torus Water Level (5) (6)	None	Once/6 Months	
a. \pm 25 in. Wide Range Indicator			
b. 18 in. Sight Glass			
<u>SAFETY/RELIEF VALVE MONITORING</u>			
1. Safety/Relief Valve Position Indicator (Acoustic Monitor) (8)	(7)	None	Once per 31 days

NOTES:

7. Functional tests will be conducted before startup at the end of each refueling outage or after maintenance is performed on a particular Safety/Relief Valve.
8. If the number of position indicators is reduced to one indication on one or more valves, continued operation is permissible; however, if the reactor is in a shutdown condition, it may not be started up until all position indication is restored. In the event that all position indication is lost on one or more valves and such indication cannot be returned in thirty days, an orderly shutdown shall be initiated, and the reactor shall be depressurized to less than 90 psig in 24 hours.
9. The Functional Test of the Scram Discharge Volume float switch shall include actuation of the switch using a water column.
10. Functional test shall include verification of the second level undervoltage (degraded voltage) timer bypass and shall verify operation of the degraded voltage 5-minute timer and inherent 7-second timer.
11. Verification of time delay setting between 3 and 9 seconds shall be performed during each refueling outage.



UNITED STATES
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. 69
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 April 25, 1983 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;
 - 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. 69, 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


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:

1. Changes to the Technical Specifications

Date of issuance: December 12, 1983

ATTACHMENT TO LICENSE AMENDMENT NO. 69

FACILITY OPERATING LICENSE NO. DPR-25

DOCKET NO. 50-245

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. These pages contain the captioned amendment number and a vertical line indicating the change.

Replace Pages

38
39
44
45

TABLE 3.2.1

INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION FUNCTIONS

Minimum No. of Operable Inst. Channels per Trip System (1)	Instruments	Trip Level Setting	Action (3)
2	Reactor Low Water	$\geq 144''$ above top of active fuel*	A
2	Reactor Low Low Water	$\geq 84''$ above top of active fuel*	A
2	High Drywell Pressure	≤ 2 psig rated (4), (5)	A
2 (2)	High Flow Main Steam Line	$\leq 120\%$ of rated steam flow	B
2 of 4 in each of 4 sets	High Temperature Main Steam Line Tunnel	$\leq 200^\circ\text{F}$	B
2	High Radiation Main Steam Line Tunnel (6)	≤ 3 times full power background	B
2	Low Pressure Main Steam Line High Flow Iso Condenser Line	≥ 850 psig	B
1	Steamline Side	≤ 20 psi diff. on steamline side	C
1	Condensate Return Side	$\leq 32''$ water diff. on condensate return side	C
2	High Flow HPCI Steam Line	$\leq 150''$ water (7)	D
4	High Temperature HPCI Steam Line Area	$\leq 200^\circ\text{F}$	D

* Top of active fuel is defined as 360'' above vessel zero for all water levels used in the LOCA Analyses (See Bases 3.2).

- NOTES: 1. Whenever primary containment integrity is required there shall be two operable or tripped trip systems for each function, except for low pressure main steamline which only need be available in the RUN position.
2. Per each steamline.
3. Action: If the first column cannot be met for one of the trip systems, that trip system shall be tripped.

TABLE 3.2.1 (cont)

If the first column cannot be met for both trip systems, the appropriate actions listed below shall be taken:

- A. Initiate an orderly shutdown and have reactor in cold shutdown condition in 24 hours.
 - B. Initiate an orderly load reduction and have reactor in Hot Standby within 8 hours.
 - C. Close isolation valves in isolation condenser system.
 - D. Close isolation valves in HPCI subsystem.
4. Need not be operable when primary containment integrity is not required.
 5. May be bypassed when necessary during purging for containment inerting and de-inerting.
 6. An alarm setting of 1.5 times normal background at rated power shall be established to alert the operator to abnormal radiation levels in the primary coolant.
 7. Verification of time delay setting between 3 and 9 seconds shall be performed during each refueling outage.

TABLE 4.2.1 (cont)

DPR-25

<u>Instrument Channel</u>	<u>Instrument Functional Test (2)</u>	<u>Calibration (2)</u>	<u>Instrument Check (2)</u>
<u>ISOLATION CONDENSER ISOLATION</u>			
1. Steam Line High Flow	(1)	Once/3 Months	None
2. Condensate Line High Flow	(1)	Once/3 Months	None
<u>HPCI ISOLATION</u>			
1. Steam Line High Flow	(1) (11)	Once/3 Months (11)	None
2. Steam Line Area High Temp.	Refueling Outage	Refueling Outage	None
3. Low Reactor Pressure	(1)	Once/3 Months	None
<u>REACTOR BUILDING VENTILATION SYSTEM VIOLATION AND STANDBY GAS TREATMENT SYSTEM INITIATION</u>			
1. Ventilation Exhaust Duct Radiation Monitors	(1)	Once/3 Months	Once/Day
2. Refueling Floor Radiation Monitors	(1)	Once/3 Months	Once/Day
<u>STEAM JET-AIR EJECTOR OFF-GAS ISOLATION</u>			
1. Radiation Monitors	(1) (3)	Once/3 Months (4)	Once/Day
<u>CONTAINMENT MONITORING</u>			
1. Pressure			
a. -5 in. Hg to +5 psig Indicator	None	Once/3 Months	Once/Day
b. 0 to 75 psig Indicator	None	Once/3 Months	None
2. Temperature	None	Refueling Outage	Once/Day
3. Drywell-Torus Differential Pressure (5) (6) (0-3 psid)	None	Once/6 Months (two channels operable) Once/Month (one channel operable)	None
4. Torus Water Level (5) (6)	None	Once/6 Months	
a. ± 25 in. Wide Range Indicator			
b. 18 in. Sight Glass			
<u>SAFETY/RELIEF VALVE MONITORING</u>			
1. Safety/Relief Valve Position Indicator (Acoustic Monitor) (8)	(7)	None	Once per 31 days

NOTES:

7. Functional tests will be conducted before startup at the end of each refueling outage or after maintenance is performed on a particular Safety/Relief Valve.
8. If the number of position indicators is reduced to one indication on one or more valves, continued operation is permissible; however, if the reactor is in a shutdown condition, it may not be started up until all position indication is restored. In the event that all position indication is lost on one or more valves and such indication cannot be returned in thirty days, an orderly shutdown shall be initiated, and the reactor shall be depressurized to less than 90 psig in 24 hours.
9. The Functional Test of the Scram Discharge Volume float switch shall include actuation of the switch using a water column.
10. Functional test shall include verification of the second level undervoltage (degraded voltage) timer bypass and shall verify operation of the degraded voltage 5-minute timer and inherent 7-second timer.
11. Verification of time delay setting between 3 and 9 seconds shall be performed during each refueling outage.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 78 TO PROVISIONAL OPERATING LICENSE NO. DPR-19
AND AMENDMENT NO. 69 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

On April 25, 1983, Commonwealth Edison Company (CECo) proposed amendments to Appendix A of Operating Licenses DPR-19 and DPR-25. The proposal specifies the time-delay settings for high steam flow for the HPCI systems at Dresden 2 and 3. This delay is designed to prevent inadvertent isolation of these systems on startup and is a requirement of TMI Item II.K.3.15 which states that "pipe-break-detection circuitry should be modified so that pressure spikes resulting from HPCI and RCIC (latter not applicable to Dresden 2 and 3) system initiation will not cause inadvertent system isolation". CECo's proposed method of resolution of this issue was accepted by the staff in a letter dated June 15, 1982. Changes to the Technical Specifications are required and CECo has proposed a verification of the time delay setting between 3 and 9 seconds during each refueling outage to meet this requirement.

A Notice of Consideration of Issuance of Amendment to licenses and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing related the requested action was published in the Federal Register on September 21, 1983 (48 FR 43131). No request for hearing was received and no comments were received.

2.0 EVALUATION

The 3 to 9 second time delay proposed by CECo implies a delay setting of six seconds so drift of that setting can be accommodated. In the Safety Evaluation transmitted with the staff's June 15, 1982 acceptance letter, delay times up to thirteen seconds were found to be acceptable without violating the design bases for the HPCI isolation systems. The time delay proposed by CECo is, therefore, acceptable.

The proposed surveillance interval of each refueling outage agrees with wording in the Standard Technical Specifications relative to the intervals for such instrumentation and is, therefore, also acceptable.

3.0 ENVIRONMENTAL QUALIFICATION

The staff has determined that the amendments do not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, the staff further concludes that the amendments involve an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR 51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal, need not be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

The staff 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, 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 or to the health and safety of the public.

5.0 ACKNOWLEDGEMENT

R. A. Gilbert prepared this Safety Evaluation

Dated: December 12, 1983