

May 27, 1986

Docket No. 50-249

DISTRIBUTION

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

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Dear Mr. Farrar:

SUBJECT: TECHNICAL SPECIFICATION AMENDMENT - ISOLATION CONDENSER RETURN LINE FLOW SETPOINT REVISION (TAC 61101)

Re: Dresden Nuclear Power Station, Unit No. 3

The Commission has issued the enclosed Amendment No. 86 to Facility Operating License No. DPR-25 for Dresden Unit 3. This amendment is in response to your application dated March 31, 1986.

The amendment revises the high flow isolation setpoint for the Dresden Unit 3 Isolation Condenser (ISCO) Return Line. The change is required because of a replacement of the existing elbow taps for sensing flow rate with an annubar flow element during the current Recirculation Pipe Replacement Outage. No change will result from the installation of the new annubar flow element except that the trip level settings are being modified to 14.8" H₂O differential from the previous 32" differential. This is merely a number change due to differences in instrumentation and does not change the function of the ISCO system to automatically isolate from the reactor at 300 percent normal flow due to a line break. In addition, the Limiting Condition for Operation Bases page (3/4.2-31, second paragraph) pertaining to the ISCO return and supply lines differential pressure sensors is being clarified. We find these changes acceptable.

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,
ORIGINAL SIGNED BY

John A. Zwolinski, Director
BWR Project Directorate #1
Division of BWR Licensing

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P PDR

- Enclosures:
1. Amendment No. 86 to License No. DPR-25
2. Safety Evaluation

cc w/enclosures:
See next page

DBL:PD#1
CJamerson
4/29/86

DBL:PD#1
RGilbert:tm
4/29/86

OELD
Borden
5/5/86

DBL:PD#1
JZwolinski
5/26/86

*Unit issue 30 days
until 7/15/86
is per
JZ*

Mr. Dennis L. Farrar
Commonwealth Edison Company

Dresden Nuclear Power Station
Unit 3

cc:

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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. 86
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 31, 1986, 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.

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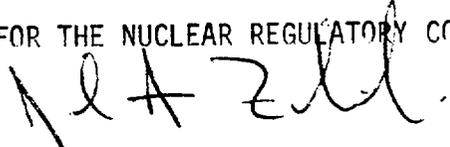
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B. of Facility Operating License No. DPR-25 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 86, 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 A. Zwolinski, Director
BWR Project Directorate #1
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 27, 1986.

ATTACHMENT TO LICENSE AMENDMENT NO. 86

FACILITY OPERATING LICENSE DPR-25

DOCKET NO. 50-249

Revise 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

3/4.2-8
3/4.2-31

INSERT

3/4.2-8
3/4.2-31

TABLE 3.2.1

INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION FUNCTIONS

MINIMUM # OF OPERABLE INST. CHANNELS PER TRIP SYSTEM (1)	INSTRUMENTS	TRIP LEVEL SETTING	ACTION (3)
2	Reactor Low Water Level	Greater than 144" above top of active fuel (8)	A
2	Reactor Low Low Water	Greater than or equal to 84" above top of active fuel (8)	A
2	High Drywell Pressure	Less than or equal to 2 psig (4),(5)	A
2 (2)	High Flow Main Steam Line	Less than or equal to 120% of rated steam flow	B
2 of 4 in each of 4 sets	High Temperature Main Steamline Tunnel	Less than or equal to 200°F.	B
2	High Radiation Main Steamline Tunnel	Less than or equal to 3 times full power background (6)	B
2	Low Pressure Main Steamline	Greater than or equal to 850 psig	B
	High Flow Isolation		
1	Condenser Line Steamline Side	Less than or equal to 20 psi diff on steamline side.	C
1	Condensate Return Side	Less than or equal to 14.8" water diff on condensate return side	C
2	High Flow HPCI Steamline	Less than or equal to 150 inches of water diff. (7)	D
4	High Temperature HPCI Steamline Area	Less than or equal to 200°F.	D

Notes:
 (See Next Page)

3/4.2-8

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

and/or bypass valves to open. With the trip set at 850 psig, inventory loss is limited so that fuel is not uncovered and peak clad temperatures are much less than 1500 degrees F; thus, there are no fission products available for release other than those in the reactor water. (Ref. Section 11.2.3 SAR)

Two sensors on the isolation condenser supply line and two sensors on the return line are provided to detect the failure of isolation condenser line and actuate isolation action. The sensors on the supply and return sides are arranged such that any one of the four sensors can cause isolation and, to meet the single failure criteria, all sensors and instrumentation are required to be operable. The trip settings of 20 psi differential and 14.8 inches of water differential and valve closure time are such as to prevent uncovering the core or exceeding site limits. The sensors will actuate due to high flow in either direction.

The HPCI high flow and temperature instrumentation are provided to detect a break in the HPCI piping. Tripping of this instrumentation results in actuation of HPCI isolation valves, i.e., Group 4 valves. Tripping logic for this function is the same as that for the isolation condenser and thus all sensors are required to be operable to meet the single failure of design flow and valve closure time are such that core uncovering is prevented and fission product release is within limits.

The instrumentation which initiates ECCS action is arranged in a dual bus system. As for other vital instrumentation arranged in this fashion the Specification preserves the effectiveness of the system even during periods when maintenance or testing is being performed.

The control rod block functions are provided to prevent excessive control rod withdrawal so that MCPR does not go below the MCPR fuel cladding integrity safety limit. The trip logic for this function is 1 out of n, e.g., any trip on one of the six APRM's, 8 IRM's, or 4 SRM's will result in a rod block. The minimum instrument channel requirements assure sufficient instrumentation to assure the single failure criteria are met. The minimum instrument channel requirements for the RBM may be reduced by one for a short period of time to allow for maintenance, testing or calibration. This time period is only approximately 3% of the operating time in a month and does not significantly increase the risk of preventing an inadvertent control rod withdrawal.

The APRM rod block function is flow biased and prevents a significant reduction in MCPR, especially during operation at



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 86 TO FACILITY OPERATING LICENSE NO. DPR-25

COMMONWEALTH EDISON COMPANY

DRESDEN NUCLEAR POWER STATION, UNIT NO. 3

DOCKET NO. 50-249

1.0 INTRODUCTION

By letter dated March 31, 1986, Commonwealth Edison Company (the licensee) made application to amend the Technical Specifications (TS) of Dresden Station Unit 3 to revise the high flow isolation setpoint for the unit's Isolation Condenser (ISCO) Return Line. The change is required because of a replacement of the existing elbow taps for sensing flow rates in the return line with an annubar flow element located at a different point in the line. This is being done during the current Recirculation Pipe Replacement Outage. Because of this modification, the trip level settings are being changed to 14.8" H₂O differential from the previous 32" differential. This is merely a number change due to differences in instrumentation and does not alter the function of the ISCO system to automatically isolate from the reactor at 300 percent normal flow due to a line break. In addition, the Limiting Condition for Operation (LCO) Bases page (3/4.2-31, second paragraph) pertaining to the ISCO return and supply lines differential pressure sensors is being clarified.

2.0 EVALUATION

The annubar flow element, which is a pitot tube, would be installed in the straight portion of the vertical piping section closest to the reactor vessel. This would prevent its installation from impacting the normal stresses already existing in nearby elbows and the staff finds this installation point acceptable. The present trip level setting of 32" water differential pressure for the ISCO condensate return line high flow would be changed to 14.8" differential to correspond to the change in instrumentation. The licensee indicated that the original 32" differential corresponds to a high flow rate of 2508 gpm which is 300 percent of the normal ISCO return line flow of 836 gpm and is the original General Electric design for ISCO isolation. The 2508 gpm number was used to calculate the 14.8" H₂O differential setpoint for the new annubar. The staff agrees that this is merely a number change due to differences in instrumentation and does not change the function of the ISCO system to automatically isolate from the reactor at 300 percent normal flow due to a line break. The use of the new number is therefore acceptable.

The licensee has rewritten the second sentence of the second paragraph of the LCO bases page 3/4.2-31 to clarify that there are two sensors on the supply line and two sensors on the return line and that any one of the four sensors can cause system isolation. In the third sentence, "20 psig" is being changed to "20 psi" and the word "differential" is being added following "14.8 inches of water". The staff finds these changes acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change 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 amendment involves 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets 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 this amendment.

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 this amendment will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: R. A. Gilbert

Dated: May 27, 1986.