

ATTACHMENT 1

PROPOSED CHANGES TO DPR-25

TECHNICAL SPECIFICATIONS

Affected Pages: 3/4.2-8  
B 3/4.2-31

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TABLE 3.2.1

INSTRUMENTATION THAT INITIATES PRIMARY CONTAINMENT ISOLATION FUNCTIONS

<u>MINIMUM # OF OPERABLE INST. CHANNELS PER TRIP SYSTEM (1)</u>	<u>INSTRUMENTS</u>	<u>TRIP LEVEL SETTING</u>	<u>ACTION (3)</u>
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)

3.2 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. During Single Loop Operation, the flow biased RBM is reduced by 4 percent to compensate for reverse flow in the idle loop jet pumps.

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

## ATTACHMENT 2

### TECHNICAL BASIS FOR PROPOSED SETPOINT

During the Unit 3 Recirculation Pipe Replacement outage, the elbow taps on the Isolation Condenser (ISCO) return line will be replaced with an annubar flow element (pitot tube). The annubar will be installed on the vertical piping section closest to the reactor vessel, which is about 8 feet upstream of the existing elbow taps. The new flow element is being installed in conjunction with the replacement of the ISCO return line piping.

The new annubar will necessitate a change to Technical Specification Table 3.2.1, "Instrumentation that Initiates Primary Containment Isolation Functions", page 3/4.2-8, and the Limiting Condition for Operation Bases, page 3/4.2-31. The present trip level setting of 32" water differential pressure for the ISCO condensate return line high flow is being changed to 14.8". This trip level setpoint is for instruments DPIS 3-1349-A,B that detect ISCO return line failure by a high differential pressure and actuate the isolation function. The original 32" water differential corresponds to a high flow rate of 2508 gpm. This flow rate of 2508 gpm is 300 percent of normal ISCO return line flow of 836 gpm. 300 percent of normal flow is the original General Electric design for ISCO isolation. In calculating a corresponding setpoint for the new annubar, 2508 gpm was used. The new number is 14.8" H<sub>2</sub>O differential. This change 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 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 rewritten for clarity. The second sentence used to read, "the sensors on the supply and return sides are arranged in a 1 out 2 logic", which may have lead one to think that there were a total of two sensors, either of which could cause isolation, instead of four. The rewrite clarifies 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".

SIGNIFICANT HAZARDS CONSIDERATION

Description of Amendment Request

The proposed amendment to the Technical Specifications for Dresden Unit 3 involves the following:

- 1) Changing the trip level setpoint for the ISCO return line high flow from 32" to 14.8" water differential in both Table 3.2.1, and the Limiting Condition for Operation Bases. The change is merely a number change due to the installation of a new annubar flow element and does not affect the isolation function nor the isolation flow rate of the system.
- 2) Rewriting the LCO Bases pertaining to the ISCO differential pressure sensors for clarity reasons.

During the Unit 3 Recirculation Pipe Replacement outage, the elbow taps on the Isolation Condenser (ISCO) return line will be replaced with an annubar flow element (pitot tube) when the affected section of piping containing the flow taps is replaced. The new annubar necessitates a change to both Table 3.2.1, "Instrumentation That Initiates Primary Containment Isolation Functions", and the Limiting Condition for Operation Bases pertaining to ISCO isolation setpoints. The present trip level setpoint of 32" water differential is being changed to 14.8" water differential. This setpoint is for DPIS instruments that detect ISCO return line failure by a high differential pressure, and actuate the isolation function. The present 32" water differential setting corresponds to a high flow rate of 2508 GPM. This flow rate of 2508 GPM is 300 percent of normal ISCO return line flow (836 GPM). The high flow trip of 300 percent normal ISCO flow is the original General Electric design for ISCO isolation. Therefore, in calculating a corresponding setpoint for the new annubar, 2508 GPM was used to determine the new setpoint of 14.8" water differential pressure.

The Limiting Condition for Operation Bases pertaining to the ISCO return and supply lines differential pressure sensors was rewritten to clarify that there are two sensors on the supply line and two sensors on the return line, and any one of the four can cause system isolation.

Basis For Proposed No Significant Hazards Consideration Determination

Commonwealth Edison has performed an evaluation of the hazards considerations associated with the proposed Technical Specification amendment utilizing the criteria in 10CFR 50.92. Our evaluation is provided below and specifically addresses the three criteria of 10CFR 50.92(c) for the change described above.

The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated because the trip level setting change is due to the installation of the new annubar on the ISCO return line, and corresponds to the design trip flow rate of 2508 GPM. This trip flow rate is General Electric's original design of 300 percent of normal flow (836 GPM) which causes the system to automatically isolate from the reactor due to a condensate return line break. The setpoint change is therefore merely a number change due to the nature of the new instrument and provides

for the same mode of operation for which the system was designed. The LCO Bases is being rewritten for clarity reasons only and does not functionally impact the system's operation or isolation.

The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated because the original isolation function of the ISCO system is maintained, and the change is necessary only to accommodate the new instrument. The ISCO system will still automatically isolate as designed due to high flow of 2508 GPM in either direction on the condensate return line. This change does not affect the actual trip flow rate and therefore does not functionally impact the isolation mode of the system.

The proposed amendment does not involve a significant reduction in the margin of safety because the change does not affect the design flow rate at which the system will isolate. In the event of a condensate return line break the ISCO system will isolate at 14.8" H<sub>2</sub>O differential which corresponds to the design flow of 2508 GPM (300 percent of normal flow, 836 GPM). This isolation will prevent uncovering the core and exceeding site limits, thus maintaining the margin of safety.

For the reasons stated above, Commonwealth Edison finds that the proposed amendment does not involve a significant hazards consideration based on the criteria of 10CFR 50.92(c). We, therefore, request approval of the proposed amendment under the provisions of 10CFR 50.91(a)(4).