

Watts Bar Nuclear NRC Exam 2019-301 Post-Exam Comment
Error in Scenario 3 D-2 regarding Technical Specification for Eagle-21 1-R-3 Failure

Question:

Is the Technical Specification determination for Eagle-21 1-R-3 failure in the Scenario 3 D-2 correct? Specifically, does Containment Pressure **Channel I** (1-LPP-30-45) provide an input to the automatic Safety Injection signal (LCO 3.3.2 Function 1.d)?

Answer:

No. The Scenario 3 D-2 is NOT correct.

Containment Pressure Channel I does NOT provide input into LCO 3.3.2 Function 1, Safety Injection.

References:

WBN NRC Exam 2019-301 Scenario 3 D-2

1-AOI-44

1-IMI-99.003

WBN U1 Technical Specifications

WBN U1 Technical Requirements Manual

The complete determination for the 1-R-3 failure is specified below:

LCO 3.3.2, ESFAS Instrumentation

Condition A – Directs to enter Conditions referenced in Table 3.3.2-1

<u>Function ID</u>	<u>Function</u>	<u>Condition</u>
1.e	SAFETY INJECTION on Steam Line Pressure-Low	D
2.c	CONTAINMENT SPRAY on Containment Pressure-High High	E
3.b.(3)	PHASE B ISOLATION on Containment Pressure-High High	E
4.c	STEAM LINE ISOLATION on Containment Pressure-High High	E
4.d.(1)	STEAM LINE ISOLATION on Steam Line Pressure-Low	D
7.b	AUTOMATIC SWITCHOVER TO CONTAINMENT SUMP on RWST Level-Low	K

LCO 3.3.3, Post Accident Monitoring Instrumentation

<u>Function ID</u>	<u>Function</u>	<u>Condition</u>
10	Containment Pressure (Narrow Range)	A
23	RWST Level	A
24	Steam Generator Pressure	A

The following are TRACKING ONLY:

- LCO 3.3.2, ESFAS Instrumentation, Function 4.d.(2), STEAM LINE ISOLATION on Steam Line Pressure-Negative Rate-High. TRACKING ONLY due to being above P-11.
- TR 3.1.6, Borated Water Sources-Operating. TRACKING ONLY due to TR 3.1.2 ONLY requiring RWST OPERABLE. RWST provides two OPERABLE flow paths IAW TR 3.1.2.
- TR 3.3.7, Plant Calorimetric Measurement. TRACKING ONLY due to redundant (Channel II) indications being available for SG 1 and SG 2 Steam Pressure and Steam Flow to calculate the LEFM based calorimetric. The loss of both Feedwater Flow indications to SG 2 from Eagle-21 does NOT impact the LEFM measurement of total Feedwater Flow.

The following instrumentation loops are lost when Eagle-21 1-R-3 fails:

1-LPP-1-2A (P-514), SG 1 Steam Pressure Channel I (LCOs 3.3.2 and 3.3.3 and TR 3.3.7)
 1-LPP-1-9A (P-524), SG 2 Steam Pressure Channel I (LCOs 3.3.2 and 3.3.3 and TR 3.3.7)
 1-LPF-1-3A (F-512), SG 1 Steam Flow Channel I (TR 3.3.7)
 1-LPF-1-10A (F-522), SG 2 Steam Flow Channel I (TR 3.3.7)
 1-LPF-3-35A (F-510), SG 1 Feedwater Flow Channel I
 1-LPF-3-48A (F-520), SG 2 Feedwater Flow Channel I
 1-LPP-30-45 (P-937), Containment Pressure (Narrow Range) Channel I (LCOs 3.3.2 and 3.3.3)
 1-LPL-62-238 (L-102), Boric Acid Tank A Level (TR 3.1.6)
 1-LPL-63-50 (L-913), RWST Level Channel I (LCOs 3.3.2 and 3.3.3)

Post Exam Comment for Scenario 4

Issue:

The Simulator Guide for Scenario 4 had Tech Spec LCO 3.8.1.(b) and 3.8.1.(c) listed as Technical Spec actions for failure of an Essential Raw Cooling Water (ERCW) pump. Candidates selected LCO 3.8.1.(b) only.

Detail:

The Simulator Guide for Scenario 4 had LCO 3.8.1.(b) and 3.8.1.(c) listed as Tech Spec actions for failure of Essential Raw Cooling Water (ERCW) pump. Candidates selected LCO 3.8.1.(b) only.

The guide was originally submitted listing only LCO 3.8.1.(b), but was changed following validation with Operations. Operations has reached a conservative, consensus position that both (b) and (c) should be entered to ensure all possible failure conditions are addressed immediately and continued during the few minutes prior to the selector switch being aligned to the operable pump.

During the training program, the candidates were taught to only enter condition (b). This difference will be discussed during Gap Training to ensure that the candidates have an understanding of the Ops Management position. Condition Report 1540901 has been written to ensure the difference is addressed and for further evaluation by the Initial Training Curriculum Review Committee (ILT CRC).

Based on these factors, either answer (3.8.1. (b) only OR both 3.8.1.(b) and 3.8.1.(c)) should be accepted as correct.