ILT21 SRO NRC Makeup Examination KEY

#	ID	Answers 0
1	004G2.4.41 1	A
2	008AG2.4.47 1	C
3	011G2.1.20 1	C
4	012A2.06 1	C
5	013A2.05 1	D
6	015G2.1.25 1	B
7	054AG2.2.04 1	B
8	055EA2.05 1	A
9	058AG2.1.23 1	A
10	059A2.07 1	D
11	061G2.2.22 1	C
12	077AA2.08 1	C
13	086A2.03 1	D
14	G2.1.34 1	A
15	G2.1.45 1	C
16	G2.2.15 1	D
17	G2.2.44 1	D
18	G2.3.06 1	D
19	G2.4.32 1	A
20	G2.4.38 1	A
21	WE02EA2.01 1	A
22	WE05EA2.01 1	D
23	WE08EG2.4.34 1	B
24	WE13EA2.02 1	A
25	WE16EG2.4.04 1	C
SECTION 1 (25 items)		**25.00**

Name: _____

ILT21 SRO NRC Makeup Student Test

***Start Time*:** _____

***Stop Time*:** _____

1.

Initial conditions:

- Unit 1 is at 100% reactor power.
- ALB07-C05 LP LTDN RELIEF HI TEMP is received.
- PRT pressure, level, and temperature are slowly rising.
- VCT auto makeup is in progress.

Current conditions:

- OATC placed charging in manual and stabilized pressurizer level.
- 1FI-121, Charging Flow, indicates 161 gpm.
- 1FI-132, Letdown Flow, indicates 120 gpm.
- RCP seal injection flow is 8 gpm to each RCP.
- RCP seal leak-off is 2.5 gpm from each RCP.

Which one of the following completes the following statement?

Per Tech Spec LCO 3.4.13, "RCS Operational Leakage," the current RCS leakage is classified as __(1)__,

and

per NMP-EP-110, "Emergency Classification Determination and Initial Action," an emergency classification threshold value __(2)__ been exceeded.

	__(1)__	__(2)__
A.	identified	has
B.	identified	has NOT
C.	unidentified	has
D.	unidentified	has NOT

2.

Procedure titles as follows:

- 18000-C, "Pressurizer Spray, Safety, or Relief Valve Malfunction"
- 18001-C, "Systems Instrumentation Malfunction"

Initial conditions:

- Unit 1 is at 100% reactor power.
- ALB12-F04 PV-456A OPEN SIGNAL is received.
- 1PV-456, Pressurizer PORV, indicates open on the QMCB.
- 1PI-455, Pressurizer Pressure, is 2200 psig and lowering.
- 1PI-456, Pressurizer Pressure, is 2550 psig and stable.
- 1PI-457, Pressurizer Pressure, is 2210 psig and lowering.
- 1PI-458, Pressurizer Pressure, is 2195 psig and lowering.

Current conditions:

- OATC places 1HS-456, Pressurizer PORV, in the CLOSE position.
- PRT pressure, temperature, and level stabilize.

Which one of the following completes the following statement?

Based on the given conditions, the Shift Supervisor is required to enter __(1)__,

and

per the Bases of Tech Spec LCO 3.4.11, "Pressurizer PORVs," 1PV-456, Pressurizer PORV, __(2)__ OPERABLE.

	__(1)__	__(2)__
A.	18000-C	is
B.	18000-C	is NOT
C.	18001-C	is
D.	18001-C	is NOT

3.

Initial condition:

- Unit 2 is at 90% reactor power.

Current condition:

- 2LT-459, Pressurizer Level, fails **high**.

Which one of the following completes the following statement?

Tech Spec LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation," Function 9, Pressurizer Water Level - High, __(1)__ met,

and

per the Bases of Tech Spec LCO 3.3.1, the Pressurizer Water Level - High reactor trip provides __(2)__.

A. (1) is

(2) a backup to the Pressurizer High Pressure reactor trip

B. (1) is

(2) the primary protection for a Loss of Turbine Load event

C. (1) is NOT

(2) a backup to the Pressurizer High Pressure reactor trip

D. (1) is NOT

(2) the primary protection for a Loss of Turbine Load event

4.

Initial conditions:

- Unit 1 is at 100% reactor power.
- ALB09-C01 STM GEN LOOP 3 LO-LO LEVEL REACTOR TRIP is received.
- Reactor will NOT trip using either Reactor Trip handswitch in the Control Room.
- 19211-1, "Response to Nuclear Power Generation / ATWT," is in progress.

Current conditions:

- Crew is at Step 8 to "Check the following trips have occurred - reactor trip."
- System Operator reports that the RTBs will NOT open locally.

Which one of the following completes the following statement?

Based on the current conditions and per 19211-1, the **next** required action is to __(1)__,

and

per NMP-EP-110, "Emergency Classification Determination and Initial Action," an emergency classification threshold value __(2)__ been exceeded.

A. (1) initiate emergency boration

   (2) has

B. (1) initiate emergency boration

   (2) has NOT

C. (1) open the Control Rod Drive MG Set output breakers

   (2) has

D. (1) open the Control Rod Drive MG Set output breakers

   (2) has NOT

5.

Given the following:

- Unit 2 is at 100% reactor power.
- 2CD1M de-energizes due to a fault.

Which one of the following completes the following statements?

Based on the given conditions and per Tech Spec LCO 3.7.5, "Auxiliary Feedwater (AFW) System," the required action completion time is __(1)__.

Based on the given conditions, if an AFW actuation signal were to occur, the TDAFW pump __(2)__ automatically start and provide flow.

REFERENCES PROVIDED

	__(1)__	__(2)__
A.	7 days	would
B.	7 days	would NOT
C.	72 hours	would
D.	72 hours	would NOT

6.

Given the following:

- Unit 1 is at 97% reactor power.
- All plant parameters are stable.
- OATC checks AFD on the IPC.

Which one of the following completes the following statement?

Based on the IPC data provided, Tech Spec LCO 3.2.3, "Axial Flux Difference (AFD) (Relaxed Axial Offset Control (RAOC) Methodology)," __(1)__ met,

and

based on the given conditions and per the Bases of Tech Spec LCO 3.3.1, "Reactor Trip System (RTS) Instrumentation," the **OT delta T** reactor trip function __(2)__ OPERABLE.

REFERENCES PROVIDED

	__(1)__	__(2)__
A.	is	is
B.	is	is NOT
C.	is NOT	is
D.	is NOT	is NOT

7.

Initial conditions:

- Unit 2 is at 100% reactor power.
- A total loss of feedwater occurs.

Current conditions:

- An automatic reactor trip occurs.
- RTB 'A' is open.
- RTB 'B' is NOT open.

Which one of the following completes the following statement?

With no operator action, the Main Feed Isolation Valves (MFIVs) __(1)__ closed,

and

per the Bases of Tech Spec LCO 2.1.2, "Reactor Coolant System (RCS) Pressure SL," the RCS pressure transient safety analysis takes credit for the SG __(2)__.

	__(1)__	__(2)__
A.	are	ARVs
B.	are	Safety Valves
C.	are NOT	ARVs
D.	are NOT	Safety Valves

8.

Initial conditions:

- Unit 2 is at 100% reactor power.
- DG2A is tagged out.
- A loss of all off-site power occurs.
- DG2B starts and then trips on overspeed.

Current conditions:

- 19100-2, "Loss of All AC Power," is in progress.
- Crew is at the step to "Perform DC Load Shed."

Which one of the following completes the following statements?

Based on the initial conditions and per the Bases of Tech Spec LCO 3.8.4, "DC Sources - Operating," 1E batteries are sized to have sufficient capacity to supply the required loads for a **minimum** of __(1)__ hours.

Per 19100-2, the Shift Supervisor __(2)__ required to direct the performance of the DC load shed using an Attachment in 19100-2.

	__(1)__	__(2)__
A.	4	is
B.	4	is NOT
C.	2.75	is
D.	2.75	is NOT

9.

Initial condition:

- Unit 1 is at 100% reactor power.

Current conditions:

- All Train 'A' MSIV red and green handswitch lights extinguish.
- RTB 'A' red and green lights extinguish.
- RCP #1, 1E breaker red and green handswitch lights extinguish.
- Channel I TSLB bistable lights are lit.

Which one of the following completes the following statement?

The Shift Supervisor __(1)__ required to enter 18034-1, "Loss of Class 1E 125 VDC Power,"

and

the Shift Supervisor __(2)__ required to enter 19000-1, "Reactor Trip or Safety Injection."

	__(1)__	__(2)__
A.	is	is
B.	is	is NOT
C.	is NOT	is
D.	is NOT	is NOT

10.

Initial conditions:

- Unit 1 is at 60% reactor power and stable.
- MFP 'B' startup is in progress and has been idling at 1200 rpm for 15 minutes.

Current conditions:

- ALB15-D03 MFPT A TRIPPED is received.
- Feed flow indications indicate 0 MPPH on all SGs.
- MFP 'B' continues to idle in manual.
- All SG NR levels are 60% and lowering.

Which one of the following completes the following statements?

Based on the **initial** conditions, Tech Spec LCO 3.3.2, "ESFAS Instrumentation," Fu 6.d "Auxiliary Feedwater - Trip of all Main Feedwater Pumps," __(1)__ met.

Based on the given conditions and per 18016-C, "Condensate and Feedwater Malfunction," the **first** action the crew is required to perform is to __(2)__.

	__(1)__	__(2)__
A.	was	raise MFP 'B' speed
B.	was	check reactor power $\leq$ 70%
C.	was NOT	raise MFP 'B' speed
D.	was NOT	check reactor power $\leq$ 70%

11.

Given the following:

- Unit 2 is at 100% reactor power.
- CST #1 is at 64% level (320,000 gallons).
- CST #2 is at 12% level (60,000 gallons).
- All AFW pump suctions are aligned to CST #1.

Which one of the following completes the following statement?

Based on the given conditions, Tech Spec LCO 3.7.6, "Condensate Storage Tank (CST)," __(1)__ met,

and

per the Bases of Tech Spec LCO 3.7.6, the Unit 2 CST minimum required volume __(2)__ maintained to supply AFW for an RCS cooldown of up to 12 hours prior to putting RHR in service.

	__(1)__	__(2)__
A.	is	is
B.	is	is NOT
C.	is NOT	is
D.	is NOT	is NOT

12.

Initial conditions:

- Unit 1 is at 100% reactor power.
- Power Control Center reports it is one contingency away from being unable to maintain stable grid voltage.
- 18017-C, "Abnormal Grid Disturbance / Loss of Grid," Section A, "Degraded Grid Conditions," is in progress.

Current conditions:

- 1AA02 and 1BA03 Normal Incoming Breakers trip open.
- DG1A and DG1B start and re-energize their associated buses.

Which one of the following completes the following statements?

If bus voltages were steady at 3595 VAC, the Normal Incoming Breakers tripped open after a **minimum** of __(1)__ seconds.

Based on the given conditions and per 18017-C, the crew __(2)__ required to trip the reactor.

	__(1)__	__(2)__
A.	0.8	is
B.	0.8	is NOT
C.	20	is
D.	20	is NOT

13.

Initial conditions:

- Both units are at 100% reactor power.
- Motor-Driven Fire Pump is tagged out.
- One Fire Water Jockey Pump is in service.
- Sprinklers actuate in the Turbine Building due to welding.

Current conditions:

- FAILURE TO START is received on the Diesel-Driven Fire Pump #1 local control panel.
- Fire water header pressure is 92 psig and slowly lowering.

Which one of the following completes the following statements?

Consider each statement **separately**.

Based on the given conditions, Fire Protection LCO 4.3, "Suppression System Operability," __(1)__ met.

If required by Fire Protection LCO 4.3, a credited backup fire suppression system is __(2)__.

	__(1)__	__(2)__
A.	is	the portable B.5.b pump
B.	is	a Burke County EMA pumper truck
C.	is NOT	the portable B.5.b pump
D.	is NOT	a Burke County EMA pumper truck

14.

Given the following:

- Unit 2 is stable at 65% reactor power.
- Chemistry reports that RCS Dose Equivalent I-131 is 98 µCi/gram.

Which one of the following completes the following statements?

Per Tech Spec LCO 3.4.16, "RCS Specific Activity," the current Dose Equivalent I-131 activity falls in the __(1)__ operating region.

Per the Bases of Tech Spec LCO 3.4.16, the RCS activity limit ensures that the off-site dose will be limited to within a small fraction of the dose guideline values in the event of a __(2)__.

REFERENCES PROVIDED

	__(1)__	__(2)__
A.	acceptable	SGTR
B.	acceptable	large break LOCA
C.	unacceptable	SGTR
D.	unacceptable	large break LOCA

15.

Initial conditions:

- Unit 1 reactor trip and SI occur due to a LOCA.
- 19012-1, "Post-LOCA Cooldown and Depressurization," is in progress.
- Both Trains of COPS are armed.

Current conditions:

- ALB12-C05 B COLD OP LOW AUCT RCS TEMP is received.
- ALB12-F04 PV-456A OPEN SIGNAL is received.

Which one of the following completes the following statement?

Based on the given conditions, an RCS WR __(1)__ leg temperature instrument has failed,

and

per the Bases of Tech Spec LCO 3.3.3, "Post Accident Monitoring (PAM) Instrumentation," for diverse indication of the failed RCS WR temperature, the operator __(2)__ directed to use the associated loop's SG pressure.

	__(1)__	__(2)__
A.	hot	is
B.	hot	is NOT
C.	cold	is
D.	cold	is NOT

16.

Initial conditions:

- Unit 2 is at 100% reactor power.
- 2-1204-U6-100, SI Pump 'A' Discharge Isolation, is found unlocked.
- Shift Supervisor determines that 2-1204-U6-100 is on 11867-2, "Safety Related Locked Valve Verification Checklist."

Current condition:

- System Operator is dispatched to verify the position and re-lock the valve.

Which one of the following completes the following statement?

Per 10019-C, "Control of Safety Related Locked Valves," the Shift Manager __(1)__ required to authorize the sign out of the safety related locked valve key,

and

per 10019-C, when the key is issued for 2-1204-U6-100, a(n) __(2)__ verification of the valve position is required to be performed.

	__(1)__	__(2)__
A.	is	concurrent
B.	is	independent
C.	is NOT	concurrent
D.	is NOT	independent

17.

Initial conditions:

- Unit 1 is at 100% reactor power.
- SI Pump 'B' is tagged out.

Current conditions:

- NSCW Train ‘B’ supply header pressure is 75 psig and lowering.
- NSCW Train ‘B’ supply header flow is 25,000 gpm.
- NSCW Train ‘B’ return header flow is 10,000 gpm.
- 18021-C, "Loss of Nuclear Service Cooling Water System," is entered.

Which one of the following completes the following statement?

Based on the given conditions and per 18021-C, the crew is required to __(1)__ the standby Train ‘B’ NSCW pump,

and

after completing the actions of 18021-C, the Shift Supervisor will determine per 10008-C, "Recording Limiting Conditions for Operation," that a LOSF __(2)__ exist.

	__(1)__	__(2)__
A.	start	does
B.	start	does NOT
C.	place in PTL	does
D.	place in PTL	does NOT

18.

Initial conditions:

- Both units are at 100% reactor power.
- Shutdown Gas Decay Tank (SDT) #10 release is in progress.

Current conditions:

- ARE-0014, Waste Gas Effluent, fails downscale **low**.
- The release has been stopped.

Which one of the following completes the following statement?

Per the ODCM, to permit **any** additional SDT releases, ARE-0014 __(1)__ required to be returned to service,

and

per the ODCM Bases for gaseous effluent releases, the allowed quantity of gaseous effluent released __(2)__ based on Control Room habitability limitations.

	__(1)__	__(2)__
A.	is	is
B.	is	is NOT
C.	is NOT	is
D.	is NOT	is NOT

19.

At time 0800:

- Unit 1 is at 100% reactor power.
- 1PV-3000, SG#1 ARV, fails **open**.
- 18008-C, "Secondary Coolant Leakage," is in progress.

At time 0805:

- Power is lost to all annunciators in the Main Control Room.
- IPC and PSMS are available.

At time 0817:

- Shift Manager makes an emergency declaration.

Which one of the following completes the following statement?

Indication of ARV tailpipe temperature __(1)__ available on the QPCP,

and

per NMP-EP-110, "Emergency Classification Determination and Initial Action," the Shift Manager is required to declare an Emergency based on __(2)__.

REFERENCES PROVIDED

	__(1)__	__(2)__
A.	is	SU3
B.	is	SA4
C.	is NOT	SU3
D.	is NOT	SA4

20.

Given the following:

- Unit 1 reactor is tripped.
- An Alert Emergency is declared.
- Shift Manager is incapacitated due to a medical condition.

Which one of the following completes the following statements?

Per 91101-C, "Emergency Response Organization," filling the role of the alternate for the Emergency Director will initially be the __(1)__.

Based on the given conditions and per 91401-C, "Assembly and Accountability," ordering an assembly and accountability __(2)__ required.

	__(1)__	__(2)__
A.	Shift Supervisor	is
B.	Shift Supervisor	is NOT
C.	Shift Technical Advisor	is
D.	Shift Technical Advisor	is NOT

21.

Initial conditions:

- Unit 2 reactor trip and SI occur.
- CCP 'A' is tagged out.
- 19000-2, "Reactor Trip or Safety Injection," is in progress.
- OATC and UO Initial Actions pages are complete.

Current conditions:

- RCS pressure is 2150 psig and slowly rising.
- CETCs are 559 °F and slowly lowering.
- Pressurizer level is 26% and slowly rising.
- Containment pressure is 0.3 psig and stable.
- SG #1 and #4 NR levels are 35% and slowly rising.
- SG #2 and #3 NR levels are 32% and stable.
- SG #1 and #4 pressures are 1040 psig and slowly lowering.
- SG #2 and #3 pressures are 1050 psig and stable.

Which one of the following completes the following statement?

Based on the current conditions, the Shift Supervisor will **first** transition from 19000-2 to _____.

A. 19011-2, "SI Termination"

B. 19020-2, "Faulted Steam Generator Isolation"

C. 19010-2, "Loss of Reactor or Secondary Coolant"

D. 19012-2, "Post-LOCA Cooldown and Depressurization"

22.

Procedure titles as follows:

- 19010-1, "Loss of Reactor or Secondary Coolant"
- 19011-1, "SI Termination"

Initial conditions:

- Unit 1 reactor trips due to a loss of all feedwater.
- 19231-1, "Response to Loss of Secondary Heat Sink," is in progress.
- RCS bleed and feed has been established.

Current conditions:

- TDAFW pump has been returned to service.
- RCS bleed and feed has been secured.
- RCS hot leg temperatures are slowly lowering.
- RCS pressure is 1575 psig and slowly rising.
- Pressurizer level is 36% and stable.
- Containment pressure is 4.2 psig and stable.

Which one of the following completes the following statement?

Based on the current conditions and per 19231-1, the **minimum** SG level that was required to secure RCS bleed and feed was at least one SG NR level greater than __(1)__%,

and

the Shift Supervisor is required to transition to __(2)__.

	__(1)__	__(2)__
A.	9	19010-1
B.	9	19011-1
C.	30	19010-1
D.	30	19011-1

23.

Procedure titles as follows:

- 13503B-2, "Train 'B' Reactor Control Solid-State Protection System"
- 19241-2, "Response to Imminent Pressurized Thermal Shock Condition"

Initial conditions:

- Unit 2 reactor trip and SI occur.
- 19241-2 is in progress.

Current conditions:

- Crew is at the step to "Reset SI."
- Shift Supervisor determines an RCS soak will be required.

Which one of the following completes the following statements?

The RCS soak minimizes thermal gradients, which reduces corresponding __(1)__ stresses on the reactor vessel inner wall.

If SI Train 'B' will NOT reset, the Shift Supervisor will dispatch an operator to de-energize both SSPS 48 VDC power supplies and unlatch the slave relays using guidance in __(2)__.

	__(1)__	__(2)__
A.	tensile	13503B-2
B.	tensile	19241-2
C.	compressive	13503B-2
D.	compressive	19241-2

24.

Initial conditions:

- Unit 1 is at 100% reactor power.
- RAT '1A' and RAT '1B' de-energize due to a switchyard fire.

Current conditions:

- Unit 1 reactor is tripped.
- 19232-1, "Response to Steam Generator Overpressure," is in progress.
- SG #2 pressure is 1250 psig.
- SG #2 NR level is 85%.
- 1PV-3010, SG #2 ARV, will NOT open.

Which one of the following completes the following statements?

Consider each statement **separately**.

Per 19232-1, one of the allowed methods to lower SG #2 pressure is to dump steam __(1)__.

When SG NR level is greater than 93%, steam flow is NOT initiated because of the risk of __(2)__.

A. (1) to the TDAFW pump

   (2) water hammer

B. (1) to the TDAFW pump

   (2) rapid SG pressure drop

C. (1) through the MSIVs to the steam dumps

   (2) water hammer

D. (1) through the MSIVs to the steam dumps

   (2) rapid SG pressure drop

25.

At time 1400:

- Unit 2 reactor trip and SI occurs due to a small break LOCA.
- 19010-2, "Loss of Reactor or Secondary Coolant," is in progress.

At time 1430:

- All RCPs are stopped.
- Containment pressure is 8 psig.
- Containment emergency sump level is 17 inches.
- RCS pressure is 1395 psig.
- CETCs are 559 °F.
- The lowest RCS WR Tcold temperature is 440 °F.
- RVLIS Full Range level is 43%.
- 2RE-002 and 2RE-003, Containment Area Radiation, indicate 780 mr/hour.
- All SG NR levels are approximately 32%.
- The highest SG pressure is 1170 psig.

- The STA reports that entry criteria are met for a CSFST YELLOW path.

At time 1430, YELLOW path entry criteria are met for entry into _____.

A. 19223-2, "Response to Saturated Core Cooling"

B. 19235-2, "Response to Steam Generator Low Level"

C. 19253-2, "Response to High Containment Radiation Level"

D. 19242-2, "Response to Anticipated Pressurized Thermal Shock Condition"

ILT-21 Makeup SRO Exam Provided References Index

1. NMP-EP-110-GL03, “VEGP EALs – ICs, Threshold Values, and Basis,” Page 126 (Figure 2 - edited) (rev. 9.0)
2. Tech Spec LCO 3.7.5, “Auxiliary Feedwater (AFW) System,” Page 3.7.5-1 (rev. 161)
3. Unit 1 Integrated Plant Computer Screenshot, Delta Flux Parameters
4. Tech Spec LCO 3.4.16, "RCS Specific Activity," Figure 3.4.16-1, "RCS Dose Equivalent I-131 Versus Percent of Rated Thermal Power" (Amendment 96)

3.7 PLANT SYSTEMS

3.7.5 Auxiliary Feedwater (AFW) System

LCO 3.7.5 Three AFW trains shall be OPERABLE.

APPLICABILITY: MODES 1, 2, and 3.

ACTIONS

----------NOTE----------
LCO 3.0.4b is not applicable.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One steam supply to turbine driven AFW pump inoperable. OR ----------NOTE---------- Only applicable if MODE 2 has not been entered following refueling. ---------- One turbine driven AFW pump inoperable in MODE 3 following refueling.	A.1 Restore affected equipment to OPERABLE status.	7 days
B. One AFW train inoperable for reasons other than Condition A.	B.1 Restore AFW train to OPERABLE status.	72 hours

(continued)

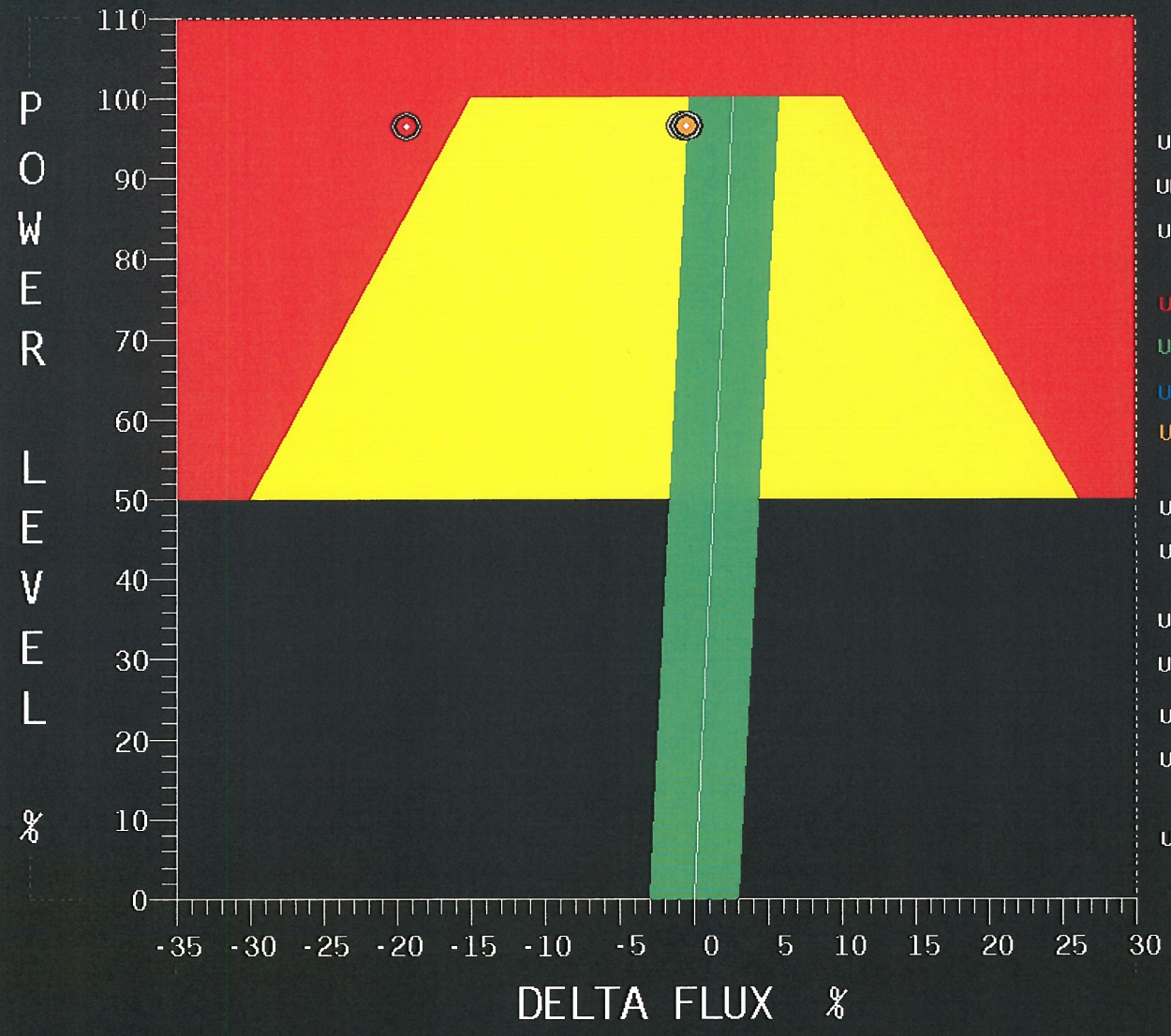
DELTA FLUX RAOC SUMMARY DISPLAY - Rolls-Royce

Main Alarms Graphics Trends/Bars/etc Point List Print Help

Main Menu | Groups | P&IDs | Trends | Apps | Reports | System | SPDS | RCS | Turbine | Point Search

ALARM | S_G C_G H_G P_G Z_G I_G R_G | SOE | MODE 1

CURRENT FUNCTION: RAOCSUM | VN0 Simulator | 16-JUN-2017 08:18:25



RAOC DISPLAY
SUMMARY

UN0049	1M AVG REACTOR POWER	96.6 GOOD
UM1145	AVERAGE CORE DELTA FLUX	-5.280 GOOD
UM1139	DF PROGRAM STATUS	ENABLED GOOD
UM1141	QUAD 4 CHANNEL 1 DELTA FLUX	-19.386 LOLO
UM1142	QUAD 2 CHANNEL 2 DELTA FLUX	-0.792 GOOD
UM1143	QUAD 1 CHANNEL 3 DELTA FLUX	-0.453 GOOD
UM1144	QUAD 3 CHANNEL 4 DELTA FLUX	-0.490 GOOD
UM1147	TARGET BAND LOW LIMIT	-0.394 GOOD
UM1148	TARGET BAND HIGH LIMIT	5.606 GOOD
UM1260	RAOC NEGATIVE ALERT LIMIT	-16.0 GOOD
UM1261	RAOC POSITIVE ALERT LIMIT	11.1 GOOD
UM1268	RAOC NEGATIVE ALARM LIMIT	-16.0 GOOD
UM1269	RAOC POSITIVE ALARM LIMIT	11.1 GOOD
UM1140	DIGITAL ALARM FOR AFD	NORMAL GOOD

1 2 CONSTANTS

4 3 SUSPEND CALCS

HOME Prev Back Fwd | F1 MENU | F2 REPORT | F3 CONSTANTS | F4 | F5 | F6 | MODE 1 | PRIM/BACK

Ready | VN0 Simulator | CPU S | TT011 | WK=010/WIN=01 | SEC LVL=03

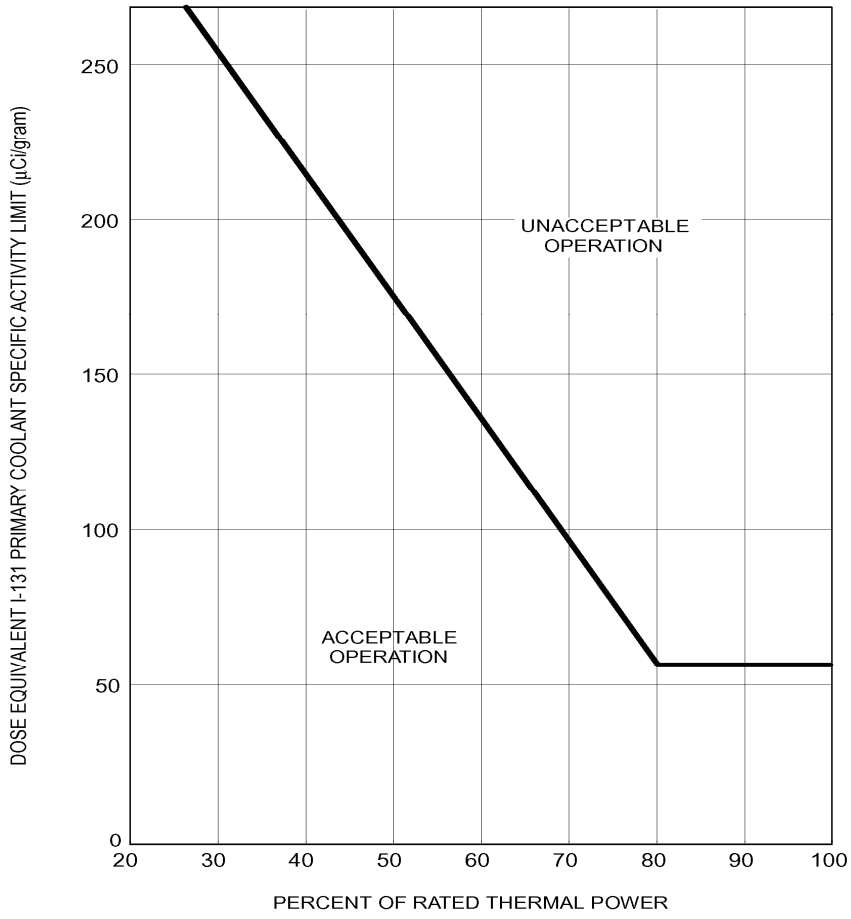


FIGURE 3.4.16-1
REACTOR COOLANT DOSE EQUIVALENT I-131 REACTOR COOLANT SPECIFIC ACTIVITY LIMIT VERSUS PERCENT OF RATED THERMAL POWER WITH THE REACTOR COOLANT SPECIFIC ACITVITY >1 µCi/gram DOSE EQUIVALENT I-131

SA4 - UNPLANNED Loss of Most or All Annunciation or Indication With **EITHER** a SIGNIFICANT TRANSIENT in Progress, **OR** Compensatory Non-Alarming Indicators are Unavailable (pg. 62)

NOTE: *SIGNIFICANT TRANSIENT: is an UNPLANNED event involving one or more of the following: (1) automatic turbine runback >25% thermal reactor power, (2) electrical load rejection >25% full electrical load, (3) Reactor Trip, (4) Safety Injection Activation, or (5) thermal power oscillations >10%.*

"Compensatory non-alarming indications" in this context includes computer based information such as SPDS. The indications needed to monitor safety functions necessary for protection of the public must include control room indications, computer generated indications and dedicated annunciation capability. The specific indications are those used to determine such functions as the ability to shut down the reactor, maintain the core cooled, to maintain the reactor coolant system intact, and to maintain containment intact.

1. UNPLANNED loss of most **OR** all MCB annunciators **OR** indicators associated with safety systems for greater than 15 minutes

AND EITHER

2. a. A SIGNIFICANT TRANSIENT is in progress
OR
b. Compensatory non-alarming indications are **NOT** available.

SU3 - UNPLANNED Loss of Most or All Safety System Annunciation or Indication in The Control Room for Greater Than 15 Minutes (pg. 56)

1. UNPLANNED loss of most **OR** all of the MCB annunciators **OR** indicators associated with safety systems for greater than 15 minutes.

SU6 - UNPLANNED Loss of All Onsite **OR** Offsite Communications Capabilities (pg. 59)

1. UNPLANNED loss of ALL of the following on-site communications capability affecting the ability to perform routine operations:

- In plant telephones
- Public address system
- Plant radio systems

OR

2. UNPLANNED loss of ALL of the following off-site communications capability:

- ENN (Emergency Notification Network)
- ENS (Emergency Notification System)
- Commercial phones (Radio, PBX, Satellite, Wireless)
- VOIP (Voice Over Internet Protocol)
- OPX (Off Premise Extension)