

OPERATOR: _____

SRO _____ DATE: _____

JPM NUMBER: 556sro

TASK NUMBER: U-000-SU-06

TASK TITLE: Drywell Leakage Calculation

K/A NUMBER: 2.1.7 K/A RATING: RO 4.4 SRO 4.7

TASK STANDARD: Calculate Drywell Floor and Equipment Sump leakage using 2-SR-2 and determine unidentified leakage is outside the acceptance criteria. Determines Technical Specification 3.4.4 Condition B is required B.1 4 Hours or B.2 4 Hours

LOCATION OF PERFORMANCE: Class Room

REFERENCES/PROCEDURES NEEDED: 2-SR-2, Technical Specification 3.4.4

VALDATION TIME: 20 minutes

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

Unit 2 is operating at 100% power after a Refuel Outage last month. The unit has been on line for 10 days. It is 0800 and the DW Floor and Equipment Drain have completed pumping down. The 0800 reading for Floor Drain is 60380 and for Equipment Drain is 44988.

INITIATING CUE:

As the Unit Supervisor complete 2-SR-2 for the Drywell Floor and Equipment Drain Sumps and determine if any Technical Specification actions are required.

Class Room

INITIAL CONDITIONS:

Unit 2 is operating at 100% power after a Refuel Outage last month. The unit has been on line for 10 days. It is 0800 and the DW Floor and Equipment Drain have completed pumping down. The 0800 reading for Floor Drain is 60380 and for Equipment Drain is 44988.

INITIATING CUE:

As the Unit Supervisor complete 2-SR-2 for the Drywell Floor and Equipment Drain Sumps and determine if any Technical Specification actions are required.

START TIME _____

Performance Step 1: Critical Not Critical

Completes 2-SR-2 for Drywell Unidentified Leakage for 0800 Saturday morning.

Standard:

Completes 0800 readings for Saturday

SAT UNSAT N/A COMMENTS: _____

Performance Step 2: Critical Not Critical

Calculates a current unidentified leakrate of 3.41 gpm

Standard:

Calculates a current unidentified leakrate of 3.41 gpm

SAT UNSAT N/A COMMENTS: _____

Performance Step 3: Critical Not Critical

Calculates a change in leakrate of 2.02 gpm

Standard:

Calculates a change in leakrate of 2.02 gpm

SAT UNSAT N/A COMMENTS: _____

Performance Step 4:

Critical _ Not Critical X

Completes 2-SR-2 for Drywell Identified Leakage and Total Leakage for 0800 Saturday morning

Standard:

Completes 0800 readings for Saturday

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 5:

Critical X Not Critical

Calculates a current identified leakrate of 2.32 gpm

Standard:

Calculates a current identified leakrate of 2.32 gpm

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 6:

Critical X Not Critical

Calculates a total leakrate of 5.73 gpm

Standard:

Calculates a total leak rate of 5.73 gpm

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 7:

Critical Not Critical

Reports that the Unidentified increase in leakage does not meet the acceptance criteria of ≤ 2 gpm within the previous 24 hour period.

Standard:

Reports that the Unidentified increase in leakage does not meet the acceptance criteria of ≤ 2 gpm within the previous 24 hour period.

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 8:

Critical Not Critical

Evaluates Technical Specification 3.4.4 and determines that Condition B is required Unidentified leakage increase not within limit. Required Action B.1 or B.2 with a completion time of 4 hours for either.

Standard:

Evaluates Technical Specification 3.4.4 and determines that Condition B is required Unidentified leakage increase not within limit. Required Action B.1 or B.2 with a completion time of 4 hours for either.

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

END OF TASK

STOP TIME _____

Table 1.2

DRYWELL UNIDENTIFIED LEAKAGE

DAY SHIFT

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-6							
Preferred reading times are 0800, 1200 and 1600	Col. A.1	Col. B.1	Col. C.1	Col. D.1	Col. E.1	Col. F.1	Col. G.1	Col. H.1	Col. I.1	LIMITS (AC)	Review Init		
	Current 2-FQ-77-6 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-6 Reading from Col. A.1 (gals) (Note 2)	Gallons Pumped Col. A.1 - Col. B.1 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.1 (Note 2)	Elapsed Time Col. D.1 - Col. E.1 (min) (Note 2)	Current Leakrate Col. C.1 + Col. F.1 (gpm) (Note 2)	Previous Days Leakrate from Col. G.1 (gpm) (Note 2)	Change in Leakrate Col. G.1 - Col. H.1 (gpm) (Note 2, 3)		UO	Unit Supvr (Note 4)	
Friday	55469	53461	2008	0800	0800	1440	1.39	1.09	+ .20	Col. G.1 ≤ 5.0 gpm and Col. I.1 ≤ 2 gpm (Note 3)	MS		
	57716	54182	3534	1200	1200	1440	2.45	1.11	+1.34		DZ		
	59010	54884	4126	1600	1600	1440	2.87	1.10	+1.77		BC		
Saturday													
Sunday		Student	Handout		Student	Handout		Student	Handout				
Monday		Student	Handout		Student	Handout		Student	Handout				

- (1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.
- (2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.1 and D.1 should be N/A'd.
- (3) Acceptance Criteria for Col. I.1 is only applicable when in Mode 1 for > 24 hours.
- (4) Unit Supervisor shall Independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

Table 1.3

DRYWELL IDENTIFIED and TOTAL LEAKAGE

DAY SHIFT

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-16							
Preferred reading times are 0800, 1200 and 1600	Col. A.2	Col. B.2	Col. C.2	Col. D.2	Col. E.2	Col. F.2	Col. G.2	Col. H.2	Col. I.2	LIMITS (AC)	Review Init		
	Current 2-FQ-77-16 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-16 Reading from Col. A.2 (gals) (Note 2)	Gallons Pumped Col. A.2 - Col. B.2 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.2 (Note 2)	Elapsed Time Col. D.2 - Col. E.2 (min) (Note 2)	Current Leakrate Col. C.2 ÷ Col. F.2 (gpm) (Note 2)	Current Unidentified Leakrate from Col. G.1 (gpm) (Notes 2 & 3)	Total Leakrate Col. G.2 + Col. H.2 (gpm) (Note 2)		UO	Unit Supvr (Note 4)	
Friday	41647	39756	1891	0800	0800	1440	1.31	1.39	2.70	Col. I.2 ≤ 30.0 gpm	MS		
	41957	40080	1877	1200	1200	1440	1.30	2.45	3.75		DZ		
	42266	40388	1878	1600	1600	1440	1.30	2.87	4.17		BC		
Saturday													
Sunday		Student	Handout		Student	Handout		Student	Handout				
Monday		Student	Handout		Student	Handout		Student	Handout				

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.2 and D.2 should be N/A'd.

(3) G.1 reading is from Drywell Unidentified Leakage Col. G.1 on previous page.

(4) Unit Supervisor shall independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

Table 1.2

DRYWELL UNIDENTIFIED LEAKAGE

DAY SHIFT

WEEK: _____

to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-6							
Preferred reading times are 0800, 1200 and 1600	Col. A.1	Col. B.1	Col. C.1	Col. D.1	Col. E.1	Col. F.1	Col. G.1	Col. H.1	Col. I.1	LIMITS (AC)	Review Init		
	Current 2-FQ-77-6 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-6 Reading from Col. A.1 (gals) (Note 2)	Gallons Pumped Col. A.1 - Col. B.1 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.1 (Note 2)	Elapsed Time Col. D.1 - Col. E.1 (min) (Note 2)	Current Leakrate Col. C.1 ÷ Col. F.1 (gpm) (Note 2)	Previous Days Leakrate from Col. G.1 (gpm) (Note 2)	Change in Leakrate Col. G.1 - Col. H.1 (gpm) (Note 2, 3)		UO	Unit Supvr (Note 4)	
Friday	55469	53461	2008	0800	0800	1440	1.39	1.09	+ .20	Col. G.1 ≤ 5.0 gpm and Col. I.1 ≤ 2 gpm (Note 3)	MS		
	57716	54182	3534	1200	1200	1440	2.45	1.11	+1.34		DZ		
	59010	54884	4126	1600	1600	1440	2.87	1.10	+1.77		BC		
Saturday	60380	55469	4911	0800	0800	1440	3.41	1.39	+2.02				
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Sunday													
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Monday													

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.1 and D.1 should be N/A'd.

(3) Acceptance Criteria for Col. I.1 is only applicable when in Mode 1 for > 24 hours.

(4) Unit Supervisor shall Independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

Table 1.3

DRYWELL IDENTIFIED and TOTAL LEAKAGE

DAY SHIFT

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-16							
Preferred reading times are 0800, 1200 and 1600	Col. A.2	Col. B.2	Col. C.2	Col. D.2	Col. E.2	Col. F.2	Col. G.2	Col. H.2	Col. I.2	LIMITS (AC)	Review Init		
	Current 2-FQ-77-16 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-16 Reading from Col. A.2 (gals) (Note 2)	Gallons Pumped Col. A.2 - Col. B.2 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.2 (Note 2)	Elapsed Time Col. D.2 - Col. E.2 (min) (Note 2)	Current Leakrate Col. C.2 ÷ Col. F.2 (gpm) (Note 2)	Current Unidentified Leakrate from Col. G.1 (gpm) (Notes 2 & 3)	Total Leakrate Col. G.2 + Col. H.2 (gpm) (Note 2)		UO	Unit Supvr (Note 4)	
Friday	41647	39756	1891	0800	0800	1440	1.31	1.39	2.70	Col. I.2 ≤ 30.0 gpm	MS		
	41957	40080	1877	1200	1200	1440	1.30	2.45	3.75		DZ		
	42266	40388	1878	1600	1600	1440	1.30	2.87	4.17		BC		
Saturday	44988	41647	3341	0800	0800	1440	2.32	3.41	5.73				
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Sunday													
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Monday													

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.2 and D.2 should be N/A'd.

(3) G.1 reading is from Drywell Unidentified Leakage Col. G.1 on previous page.

(4) Unit Supervisor shall independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

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OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: 556

TASK NUMBER: U-000-SU-06

TASK TITLE: Drywell Leakage Calculation

K/A NUMBER: 2.1.7 K/A RATING: RO 4.4 SRO 4.7

TASK STANDARD: Calculate the correct Drywell Floor and Equipment Sump leakage using 2-SR-2 and then determines that unidentified leakage is outside the acceptance criteria.

LOCATION OF PERFORMANCE: Class Room

REFERENCES/PROCEDURES NEEDED: 2-SR-2

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

Unit 2 is operating at 100% power after a Refuel Outage last month. The unit has been on line for 10 days. It is 0800 and the DW Floor and Equipment Drain have completed pumping down. The 0800 reading for Floor Drain is 60380 and for Equipment Drain is 44988.

INITIATING CUE:

The Unit Supervisor directs you as a Reactor Operator to complete 2-SR-2 for the Drywell Floor and Equipment Drain Sumps and report results.

Class Room

INITIAL CONDITIONS:

Unit 2 is operating at 100% power after a Refuel Outage last month. The unit has been on line for 10 days. It is 0800 and the DW Floor and Equipment Drain have completed pumping down. The 0800 reading for Floor Drain is 60380 and for Equipment Drain is 44988.

INITIATING CUE:

The Unit Supervisor directs you as a Reactor Operator to complete 2-SR-2 for the Drywell Floor and Equipment Drain Sumps and report results.

START TIME _____

Performance Step 1: Critical Not Critical

Completes 2-SR-2 for Drywell Unidentified Leakage for 0800 Saturday morning.

Standard:

Completes 0800 readings for Saturday

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 2: Critical Not Critical

Calculates a current unidentified leakrate of 3.41 gpm

Standard:

Calculates a current unidentified leakrate of 3.41 gpm

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 3: Critical Not Critical

Calculates a change in leakrate of 2.02 gpm

Standard:

Calculates a change in leakrate of 2.02 gpm

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

Critical X Not Critical

Completes 2-SR-2 for Drywell Identified Leakage and Total Leakage for 0800 Saturday morning

Standard:

Completes 0800 readings for Saturday

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 5:

Critical X Not Critical

Calculates a current identified leakrate of 2.32 gpm

Standard:

Calculates a current identified leakrate of 2.32 gpm

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 6:

Critical X Not Critical

Calculates a total leakrate of 5.73 gpm

Standard:

Calculates a total leak rate of 5.73 gpm .

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 7:

Critical X Not Critical

Reports that the Unidentified increase in leakage does not meet the acceptance criteria of ≤ 2 gpm within the previous 24 hour period.

Standard:

Reports that the Unidentified increase in leakage does not meet the acceptance criteria of ≤ 2 gpm within the previous 24 hour period.

SAT__ UNSAT__ N/A __ COMMENTS: _____

END OF TASK

STOP TIME ____

Table 1.2

DRYWELL UNIDENTIFIED LEAKAGE

DAY SHIFT

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-6							
Preferred reading times are 0800, 1200 and 1600	Col. A.1	Col. B.1	Col. C.1	Col. D.1	Col. E.1	Col. F.1	Col. G.1	Col. H.1	Col. I.1	LIMITS (AC)	Review Init		
	Current 2-FQ-77-6 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-6 Reading from Col. A.1 (gals) (Note 2)	Gallons Pumped Col. A.1 - Col. B.1 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.1 (Note 2)	Elapsed Time Col. D.1 - Col. E.1 (min) (Note 2)	Current Leakrate Col. C.1 + Col. F.1 (gpm) (Note 2)	Previous Days Leakrate from Col. G.1 (gpm) (Note 2)	Change in Leakrate Col. G.1 - Col. H.1 (gpm) (Note 2, 3)		UO	Unit Supvr (Note 4)	
Friday	55469	53461	2008	0800	0800	1440	1.39	1.09	+ .20	Col. G.1 ≤ 5.0 gpm and Col. I.1 ≤ 2 gpm (Note 3)	MS		
	57716	54182	3534	1200	1200	1440	2.45	1.11	+1.34		DZ		
	59010	54884	4126	1600	1600	1440	2.87	1.10	+1.77		BC		
Saturday													
Sunday		Student	Handout		Student	Handout		Student	Handout				
Monday		Student	Handout		Student	Handout		Student	Handout				

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.1 and D.1 should be N/A'd.

(3) Acceptance Criteria for Col. I.1 is only applicable when in Mode 1 for > 24 hours.

(4) Unit Supervisor shall Independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

Table 1.3

DRYWELL IDENTIFIED and TOTAL LEAKAGE

DAY SHIFT

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-16							
Preferred reading times are 0800, 1200 and 1600	Col. A.2	Col. B.2	Col. C.2	Col. D.2	Col. E.2	Col. F.2	Col. G.2	Col. H.2	Col. I.2	LIMITS (AC)	Review Init		
	Current 2-FQ-77-16 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-16 Reading from Col. A.2 (gals) (Note 2)	Gallons Pumped Col. A.2 - Col. B.2 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.2 (Note 2)	Elapsed Time Col. D.2 - Col. E.2 (min) (Note 2)	Current Leakrate Col. C.2 + Col. F.2 (gpm) (Note 2)	Current Unidentified Leakrate from Col. G.1 (gpm) (Notes 2 & 3)	Total Leakrate Col. G.2 + Col. H.2 (gpm) (Note 2)		UO	Unit Supvr (Note 4)	
Friday	41647	39756	1891	0800	0800	1440	1.31	1.39	2.70	Col. I.2 ≤30.0 gpm	MS		
	41957	40080	1877	1200	1200	1440	1.30	2.45	3.75		DZ		
	42266	40388	1878	1600	1600	1440	1.30	2.87	4.17		BC		
Saturday													
Sunday		Student	Handout		Student	Handout		Student	Handout				
Monday		Student	Handout		Student	Handout		Student	Handout				

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.2 and D.2 should be N/A'd.

(3) G.1 reading is from Drywell Unidentified Leakage Col. G.1 on previous page.

(4) Unit Supervisor shall independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

Table 1.2

DRYWELL UNIDENTIFIED LEAKAGE

DAY SHIFT _____

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-6							
Preferred reading times are 0800, 1200 and 1600	Col. A.1	Col. B.1	Col. C.1	Col. D.1	Col. E.1	Col. F.1	Col. G.1	Col. H.1	Col. I.1	LIMITS (AC)	Review Init		
	Current 2-FQ-77-6 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-6 Reading from Col. A.1 (gals) (Note 2)	Gallons Pumped Col. A.1 - Col. B.1 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.1 (Note 2)	Elapsed Time Col. D.1 - Col. E.1 (min) (Note 2)	Current Leakrate Col. C.1 + Col. F.1 (gpm) (Note 2)	Previous Days Leakrate from Col. G.1 (gpm) (Note 2)	Change in Leakrate Col. G.1 - Col. H.1 (gpm) (Note 2, 3)		UO	Unit Supvr (Note 4)	
Friday	55469	53461	2008	0800	0800	1440	1.39	1.09	+ .20	Col. G.1 ≤ 5.0 gpm and Col. I.1 ≤ 2 gpm (Note 3)	MS		
	57716	54182	3534	1200	1200	1440	2.45	1.11	+1.34		DZ		
	59010	54884	4126	1600	1600	1440	2.87	1.10	+1.77		BC		
Saturday	60380	55469	4911	0800	0800	1440	3.41	1.39	+2.02				
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Sunday													
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Monday													

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.1 and D.1 should be N/A'd.

(3) Acceptance Criteria for Col. I.1 is only applicable when in Mode 1 for > 24 hours.

(4) Unit Supervisor shall Independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

Table 1.3

DRYWELL IDENTIFIED and TOTAL LEAKAGE

DAY SHIFT

WEEK: _____ to _____

APPLICABILITY: Modes 1, 2 & 3 Readings are required at all times.													
Surveillance Requirements: 3.4.4.1						LOCATION: Panel 2-9-4, 2-FQ-77-16							
Preferred reading times are 0800, 1200 and 1600	Col. A.2	Col. B.2	Col. C.2	Col. D.2	Col. E.2	Col. F.2	Col. G.2	Col. H.2	Col. I.2	LIMITS (AC)	Review Init		
	Current 2-FQ-77-16 Reading (gals) (Notes 1, 2)	Previous Days 2-FQ-77-16 Reading from Col. A.2 (gals) (Note 2)	Gallons Pumped Col. A.2 - Col. B.2 (Note 2)	Current Time (Note 2)	Previous Days Time from Col. D.2 (Note 2)	Elapsed Time Col. D.2 - Col. E.2 (min) (Note 2)	Current Leakrate Col. C.2 ÷ Col. F.2 (gpm) (Note 2)	Current Unidentified Leakrate from Col. G.1 (gpm) (Notes 2 & 3)	Total Leakrate Col. G.2 + Col. H.2 (gpm) (Note 2)		UO	Unit Supvr (Note 4)	
Friday	41647	39756	1891	0800	0800	1440	1.31	1.39	2.70	Col. I.2 ≤30.0 gpm	MS		
	41957	40080	1877	1200	1200	1440	1.30	2.45	3.75		DZ		
	42266	40388	1878	1600	1600	1440	1.30	2.87	4.17		BC		
Saturday	44988	41647	3341	0800	0800	1440	2.32	3.41	5.73				
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Sunday													
		ANSWER	KEY		ANSWER	KEY		ANSWER	KEY				
Monday													

(1) Manually pump down sump per 2-OI-64 prior to reading. To record gallons, disregard the decimal position on integrator. Record only five digits including right-hand dial's hash marks as gallons of flow. Example: Record 0065432.1 as 54321.

(2) May be N/A'd if Surveillance Requirement is being met with the performance of 2-SR-3.4.4.1 or 2-SR-3.4.4.1-a and a note stating such shall be made in the remarks section of this SR. When initial integrator reading is taken and no previous reading exists, all other entries except for Col. A.2 and D.2 should be N/A'd.

(3) G.1 reading is from Drywell Unidentified Leakage Col. G.1 on previous page.

(4) Unit Supervisor shall independently Verify Inleakage Calculations and verify Inleakage Acceptance Criteria.

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: 550

TASK TITLE: Determine Correct Method of Verification

K/A NUMBER: 2.2.14 K/A RATING: RO 3.9 SRO 4.3

TASK STANDARD: Determine how to position verify, is verification required and type of verification for each of the listed valves need 8 out of 10 to pass.

PERFORMANCE LOCATION: CLASSROOM

REFERENCES/PROCEDURES NEEDED: SPP-10.3

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS: None

INITIATING CUE: For the listed valves determine:

1. How to perform initial check
2. Is verification required
3. Type of verification (concurrent or independent)

Valve List

1.	0-SHV-086-0514B	DG B Left Bank to Right Bank Air HDR Crosstie VLV	Locked Closed
2.	2-ISV-70-530A	Drywell CLR A3 Outlet	Throttled Open 4 Turns
3.	2-TV-70-653A	Drywell CLR A3 Test	Closed(1)
	(1) Handwheel removed from valve stem and attached to valve body with wire and lead seal crimp or chain and lock.		
4.	1-SHV-024-632A	RCW from CNDS BSTR Pump A	Throttled(1)
	(1) Throttled to maintain lube oil temperature (75° to 100°F)		
5.	3-SHV-074-0251D	RHR Pump D Seal CLT HTX Inlet SOV	Locked Open
6.	2-FCV-85-37F	East CRD SCRAM DISCH VOL Drain CONT VLV A	Handwheel Fully Clockwise
7.	2-VTV-069-0752	High Point Vent for RWCU PMP Suction	Closed
8.	3-SHV-047-0600	Oil Cooler Fill Shutoff VLV	Open
9.	1-SHV-032-0855	Branch HDR Shutoff VLV to ACCUM	Open
10.	0-SHV-033-2300	SA Compressor E Cooling Pump 1 Suction SOV	Open

Class Room

INITIAL CONDITIONS: None

INITIATING CUE: For the listed valves determine:

1. How to perform initial check
2. Is verification required
3. Type of verification (concurrent or independent)

Valve List

1.	0-SHV-086-0514B	DG B Left Bank to Right Bank Air HDR Crosstie VLV	Locked Closed
2.	2-ISV-70-530A	Drywell CLR A3 Outlet	Throttled Open 4 Turns
3.	2-TV-70-653A	Drywell CLR A3 Test	Closed(1)
		(1) Handwheel removed from valve stem and attached to valve body with wire and lead seal crimp or chain and lock.	
4.	1-SHV-024-632A	RCW from CNDS BSTR Pump A	Throttled(1)
		(1) Throttled to maintain lube oil temperature (75° to 100°F)	
5.	3-SHV-074-0251D	RHR Pump D Seal CLT HTX Inlet SOV	Locked Open
6.	2-FCV-85-37F	East CRD SCRAM DISCH VOL Drain CONT VLV A	Handwheel Fully Clockwise
7.	2-VTV-069-0752	High Point Vent for RWCU PMP Suction	Closed
8.	3-SHV-047-0600	Oil Cooler Fill Shutoff VLV	Open
9.	1-SHV-032-0855	Branch HDR Shutoff VLV to ACCUM	Open
10.	0-SHV-033-2300	SA Compressor E Cooling Pump 1 Suction SOV	Open

Performance Step 3: Critical X Not Critical

2-TV-70-653A Drywell CLR A3 Test Closed(1)

- (1) Handwheel removed from valve stem and attached to valve body with wire and lead seal crimp or chain and lock.

Standard:

Valves that are to be verified closed shall be manipulated in the closed direction only as necessary to verify the valve is fully closed, and not binding or difficult to operate. Verification is required, Concurrent verification.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4: Critical X Not Critical

1-SHV-024-632A RCW from CNDS BSTR Pump A Throttled(1)

- (1) Throttled to maintain lube oil temperature (75° to 100°F)

Standard:

To set the position of the throttled valve, use process parameters to open/close the valve. Verification is **NOT** required

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 5: Critical X Not Critical

3-SHV-074-0251D RHR Pump D Seal CLT HTX Inlet SOV Locked Open

Standard:

Valves that are to be verified open shall be manipulated in the closed direction only as necessary to remove any slack from the operating mechanism and verify valve stem movement. The valve shall then be fully opened. Verification is required, Concurrent verification.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 6:

Critical Not Critical

2-FCV-85-37F

East CRD SCRAM DISCH VOL Drain
CONT VLV A

Handwheel Fully
Clockwise

Standard:

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 7:

Critical Not Critical

2-VTV-069-0752

High Point Vent for RWCU PMP Suction

Closed

Standard:

Valves that are to be verified closed shall be manipulated in the closed direction only as necessary to verify the valve is fully closed, and not binding or difficult to operate. Verification is required, Independent verification.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 8:

Critical Not Critical

3-SHV-047-0600

Oil Cooler Fill Shutoff VLV

Open

Standard:

Valves that are to be verified open shall be manipulated in the closed direction only as necessary to remove any slack from the operating mechanism and verify valve stem movement. The valve shall then be fully opened. Verification is **NOT** required.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 9:

Critical Not Critical

1-SHV-032-0855 Branch HDR Shutoff VLV to ACCUM Open

Standard:

Valves that are to be verified open shall be manipulated in the closed direction only as necessary to remove any slack from the operating mechanism and verify valve stem movement. The valve shall then be fully opened. Verification is required, Independent verification.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 10:

Critical Not Critical

0-SHV-033-2300 SA Compressor E Cooling Pump 1 Open
Suction SOV

Standard:

Valves that are to be verified open shall be manipulated in the closed direction only as necessary to remove any slack from the operating mechanism and verify valve stem movement. The valve shall then be fully opened. Verification is **NOT** required.

SAT__ UNSAT__ N/A__ COMMENTS: _____

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: 562u3

TASK NUMBER: S-000-AD-55

TASK TITLE: RFPT Seal Injection Pump 3B Isolation Boundary

K/A NUMBER: 2.2.41 K/A RATING: RO 3.5 SRO 3.9

TASK STANDARD: Determine the components that shall be identified to isolate RFPT Seal Injection Pump 3B

LOCATION OF PERFORMANCE: Class Room / Unit 3 Simulator

REFERENCES/PROCEDURES NEEDED: 3-47E803-1, 3-45E753-3, 0-OI-57B Att. 3I

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____

EXAMINER

INITIAL CONDITIONS: The RFPT Seal Injection Pump 3B has a cracked weld on the discharge side of the pump where the seal cooler taps in to the discharge line.

INITIATING CUE: The Unit Supervisor has directed you, as a Reactor Operator, to determine the clearance boundary, or isolation points, for the repair work on the RFPT Seal Injection Pump 3B discharge line, the actual clearance is not required to be generated.

Class Room

INITIAL CONDITIONS: The RFPT Seal Injection Pump 3B has a cracked weld on the discharge side of the pump where the seal cooler taps in to the discharge line.

INITIATING CUE: The Unit Supervisor has directed you, as a Reactor Operator, to determine the clearance boundary, or isolation points, for the repair work on the RFPT Seal Injection Pump 3B discharge line, the actual clearance is not required to be generated.

START TIME _____

Performance Step 1: Critical Not Critical

Review prints and/or procedures to determine required isolation boundary: 3-47E803-1,
3-45E753-3, 0-OI-57B Att. 3I

Standard:

Locates and reviews prints and/or procedures for RFPT Seal Injection Pump 3B

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 2: Critical Not Critical

Determines Isolation boundary

Standard:

3-SHV-3-580 Pump Suction Valve, Closed with Red Tag on handwheel

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Not required to generate clearance. Identify component(s) that would be required to be listed on a clearance and their required position.

Performance Step 3:

Critical Not Critical

Determines Isolation boundary

Standard:

3-SHV-3-582 Pump Discharge Valve, Closed and Red Tag on handwheel

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

Critical Not Critical

Determines Isolation boundary

Standard:

3-HS-3-69A Control Room Hand switch, Stop with Red Tag

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 5:

Critical Not Critical

Determines Isolation boundary

Standard:

RFPT Seal Injection Pump 3B Power Supply, 480V TMOV Board 3B Breaker 9B Open with Red Tag

SAT__ UNSAT__ N/A__ COMMENTS: _____

END OF TASK

STOP TIME _____

C

C

C

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: 562u2

TASK NUMBER: S-000-AD-55

TASK TITLE: RFPT Seal Injection Pump 2B Isolation Boundary

K/A NUMBER: 2.2.41 K/A RATING: RO 3.5 SRO 3.9

TASK STANDARD: Determine the isolation boundary for the RFPT Seal Injection Pump 2B

LOCATION OF PERFORMANCE: Class Room / Unit 2 Simulator

REFERENCES/PROCEDURES NEEDED: 2-47E803-1, 2-45E753-3, 0-OI-57B Att. 3H

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____

EXAMINER

INITIAL CONDITIONS: The RFPT Seal Injection Pump 2B has a cracked weld on the discharge side of the pump where the seal cooler taps in to the discharge line.

INITIATING CUE: The Unit Supervisor has directed you, as a Reactor Operator, to determine the clearance boundary, or isolation points, for the repair work on the RFPT Seal Injection Pump 2B discharge line, the actual clearance is not required to be generated.

Class Room

INITIAL CONDITIONS: The RFPT Seal Injection Pump 2B has a cracked weld on the discharge side of the pump where the seal cooler taps in to the discharge line.

INITIATING CUE: The Unit Supervisor has directed you, as a Reactor Operator, to determine the clearance boundary, or isolation points, for the repair work on the RFPT Seal Injection Pump 2B discharge line, the actual clearance is not required to be generated.

START TIME _____

Performance Step 1: Critical _ Not Critical X

Review prints and/or procedures to determine required isolation boundary: 2-47E803-1, 2-45E753-3, 0-OI-57B Att. 3H

Standard:

Locates and reviews prints and/or procedures for RFPT Seal Injection Pump 2B

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 2: Critical X Not Critical

Determines Isolation boundary

Standard:

2-SHV-3-580 Pump Suction Valve, Closed with Red Tag on handwheel

SAT__ UNSAT__ N/A__ COMMENTS: _____

CUE: Not required to generate clearance. Identify component(s) that would be required to be listed on a clearance and their required position.

Performance Step 3:

Critical Not Critical

Determines Isolation boundary

Standard:

2-SHV-3-582 Pump Discharge Valve, Closed and Red Tag on handwheel

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

Critical Not Critical

Determines Isolation boundary

Standard:

2-HS-3-69A Control Room Hand switch, Stop with Red Tag

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 5:

Critical Not Critical

Determines Isolation boundary

Standard:

RFPT Seal Injection Pump 2B Power Supply, 480V TMOV Board 2B Breaker 9B Open with Red Tag

SAT__ UNSAT__ N/A__ COMMENTS: _____

END OF TASK

STOP TIME ____

OPERATOR: _____

SRO _____ DATE: _____

JPM NUMBER: 564

TASK NUMBER: S-000-AD-9K

TITLE: Maintenance Rule Availability determination for EECW and RHRSW

K/A NUMBER: 2.2.37 K/A RATING: SRO 4.6

TASK STANDARD: Determines that a loss of both sump pumps in an RHRSW Room makes the three pumps in that room Inoperable and Unavailable. Determines Technical Specification actions condition required 3.7.1 Condition A, B, C, and E required actions A.2, B.1, C.1, and E.1.

LOCATION OF PERFORMANCE: Classroom

REFERENCES/PROCEDURES NEEDED: Technical Specification and Bases, 0-TI-346

VALIDATION TIME: 20 minutes

MAX. TIME ALLOWED:

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

Classroom

INITIAL CONDITIONS: You are the Unit 1 Unit Supervisor. Unit 1 and 3 are at 100% power, Unit 2 is in Mode 3 currently and headed to cold shutdown at the start of a refueling outage. RHRSW Pump A2 is currently out of service. The Outside AUO reports that the D RHRSW Pump Room has 6 to 8 inches of water on the floor and neither sump pump is operating or will operate.

INITIATING CUE: Determine the effect for the above conditions on Operability and Maintenance Rule Availability of RHRSW and EECW Pumps. Determine Technical Specification required actions.

START TIME _____

Performance Step 1:

Critical X Not Critical

Refers to 0-TI-346 and determines that Loss of both sump pumps in any RHRSW room results in **unavailability** of the RHRSW and EECW pumps in that room.

Standard:

Determines that all D RHRSW Pumps are **Unavailable** (Pumps D1, D2 and D3)

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 2:

Critical X Not Critical

Refers to 0-OI-23 RHRSW System and determines at least one RHRSW pump room sump pump must be operable or the RHRSW/EECW pump in that room must be declared inoperable.

Standard:

Determines that all D RHRSW Pumps are **INOPERABLE** (Pumps D1, D2 and D3)

SAT__ UNSAT__ N/A __ COMMENTS: _____

Performance Step 3:

Critical Not Critical

Evaluate Technical Specification 3.7.1

Four RHRSW subsystems shall be OPERABLE with the number of OPERABLE pumps as listed below:

1. 1 unit fueled - four OPERABLE RHRSW pumps.
2. 2 units fueled - six OPERABLE RHRSW pumps.
3. 3 units fueled - eight OPERABLE RHRSW pumps.

Standard:

Determines that 3 pumps are currently Inoperable or 5 pumps are Operable. Condition A required action A.2, Condition B required action B.1, Condition C required action C.1, Condition E required action E.1 completion time 8 hours. Condition E most limiting.

SAT__ UNSAT__ N/A__ COMMENTS: _____

Performance Step 4:

Critical Not Critical

Evaluate Technical Specification 3.7.2

The EECW System with three pumps and UHS shall be OPERABLE.

Standard:

Determines that 1 pump is currently Inoperable or 3 pumps are Operable. No required action, a tracking or potential LCO would be required in case a second EECW Pump became Inoperable.

SAT__ UNSAT__ N/A__ COMMENTS: _____

END OF TASK

INITIAL CONDITIONS: You are the Unit 1 Unit Supervisor. Unit 1 and 3 are at 100% power, Unit 2 is in Mode 3 currently and headed to cold shutdown at the start of a refueling outage. RHRSW Pump A2 is currently out of service. The Outside AUO reports that the D RHRSW Pump Room has 6 to 8 inches of water on the floor and neither sump pump is operating or will operate.

INITIATING CUE: Determine the effect for the above conditions on Operability and Maintenance Rule Availability of RHRSW and EECW Pumps. Determine Technical Specification required actions.

OPERATOR: _____

SRO _____ DATE: _____

JPM NUMBER: 559sro

TASK NUMBER: Radiation Control

TASK TITLE: Radiation Exposure Limits under Emergency Conditions

K/A NUMBER: 2.3.4 K/A RATING: RO 3.2 SRO 3.7

TASK STANDARD: Determine if an Operator can perform an emergency evolution due to radiation levels and authorize.

LOCATION OF PERFORMANCE: Class Room

REFERENCES/PROCEDURES NEEDED: EPIP 15

VALIDATION TIME: 15 minutes

MAX. TIME ALLOWED:

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____
EXAMINER

INITIAL CONDITIONS:

Unit 2 is in a General Emergency. You are the Shift Manager; no Emergency facilities are operational, Site Emergency Director duties remain in the Control Room. Brian Smith has volunteered to stop a large off-site release, by manually closing 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve. Radiation Protection Supervision has informed you that travel path dose rates are 6 REM/hr to the valve in question and 50 REM/hr at the valve. It is estimated that Brian Smith will take 10 minutes of total travel time to and from the valve and take 30 minutes to close the valve. Brian Smith has been briefed to the radiological hazards associated with this evolution per appendix A.

INITIATING CUE:

As the Shift Manager determine if Brian Smith can be permitted to close 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve and if so complete the form Acknowledgment and Authorization to Exceed Occupational Dose Limits

Class Room

INITIAL CONDITIONS:

Unit 2 is in a General Emergency. You are the Shift Manager; no Emergency facilities are operational, Site Emergency Director duties remain in the Control Room. Brian Smith has volunteered to stop a large off-site release, by manually closing 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve. Radiation Protection Supervision has informed you that travel path dose rates are 6 REM/hr to the valve in question and 50 REM/hr at the valve. It is estimated that Brian Smith will take 10 minutes of total travel time to and from the valve and take 30 minutes to close the valve. Brian Smith has been briefed to the radiological hazards associated with this evolution per appendix A.

INITIATING CUE:

As the Shift Manager determine if Brian Smith can be permitted to close 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve and if so complete the form Acknowledgment and Authorization to Exceed Occupational Dose Limits

START TIME _____

Performance Step 1: Critical Not Critical

Determine the radiation dose that Brian Smith will receive

Standard:

Determines he will receive 26 REM

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 2: Critical Not Critical

Determines that Brian Smith may receive greater than 25 REM to protect large populations

Standard:

Determines that he can receive the estimated 26 REM

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

CUE: Provide EPIP 15 Appendix B form which is partially completed

Performance Step 3:

Critical X Not Critical

Completes Acknowledgment and Authorization to Exceed Occupational Dose Limits
form Appendix B of EPIP 15

Standard:

Determines that as the Shift Manager and acting Site Emergency Director he can
authorize the Emergency Dose

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

NOTE: Critical Data on form is the authorized 26 Rem and Approval signature

END OF TASK

STOP TIME _____



OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: 559

TASK NUMBER: Radiation Control

TASK TITLE: Radiation Exposure Limits under Emergency Conditions

K/A NUMBER: 2.3.4 K/A RATING: RO 3.2 SRO 3.7

TASK STANDARD: Determine if you as an Operator can perform an emergency evolution due to radiation levels and the authorization authority.

LOCATION OF PERFORMANCE: Class Room

REFERENCES/PROCEDURES NEEDED: EPIP 15

VALIDATION TIME:

MAX. TIME ALLOWED: (Completed for Time Critical JPMs only)

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ____ NO ____

RESULTS: SATISFACTORY ____ UNSATISFACTORY ____

SIGNATURE: _____ DATE: _____

EXAMINER

INITIAL CONDITIONS:

Unit 2 is in a General Emergency. No facilities are currently activated and Site Emergency Director duties remain in the Control Room. You have volunteered to stop a large off-site release, by manually closing 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve. Radiation Protection Supervision has informed you that travel path dose rates are 6 REM/hr to the valve in question and 50 REM/hr at the valve. It is estimated that you will take 10 minutes of total travel time to and from the valve and take 30 minutes to close the valve. You have been briefed to the radiological hazards associated with this evolution per appendix A.

INITIATING CUE:

As the Operator who has volunteered to close 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve are you permitted to perform this evolution due to the radiation dose levels and whose authorization is required if you are permitted.

Class Room

INITIAL CONDITIONS:

Unit 2 is in a General Emergency. No facilities are currently activated and Site Emergency Director duties remain in the Control Room. You have volunteered to stop a large off-site release, by manually closing 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve. Radiation Protection Supervision has informed you that travel path dose rates are 6 REM/hr to the valve in question and 50 REM/hr at the valve. It is estimated that you will take 10 minutes of total travel time to and from the valve and take 30 minutes to close the valve. You have been briefed to the radiological hazards associated with this evolution per appendix A.

INITIATING CUE:

As the Operator who has volunteered to close 2-FCV-73-3 HPCI Steam Line Outboard Isolation Valve are you permitted to perform this evolution due to the radiation dose levels and whose authorization is required if you are permitted.

START TIME _____

Performance Step 1:

Critical Not Critical

Determine the radiation dose that he will receive

Standard:

Determines he will receive 26 REM

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 2:

Critical Not Critical

Determines that he may receive greater than 25 REM to protect large populations

Standard:

Determines that he can receive the estimated 26 REM

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

Performance Step 3:

Critical X Not Critical

Identifies that the Shift Manager may authorize the dose

Standard:

Determines that the Shift Manager can authorize the Emergency Dose as the Site
Emergency Director

SAT ___ UNSAT ___ N/A ___ COMMENTS: _____

CUE: If required ask the candidate who is the site emergency director at this time?

END OF TASK

STOP TIME _____

OPERATOR: _____

SRO _____ DATE: _____

JPM NUMBER: 563tc

TASK NUMBER: S-000-EM-21 (SRO ONLY)

TITLE: Emergency Director Judgment Fission Product Barrier

K/A NUMBER: 2.4.44 K/A RATING: SRO 4.4

TASK STANDARD: The event is classified as a General Emergency 8.4-G and the Initial Notification appendix is completed with the correct information and correct PAR. Event is classified within 15 minutes and Initial Notification is completed within 15 minutes of classification.

LOCATION OF PERFORMANCE: Simulator or Classroom

REFERENCES/PROCEDURES NEEDED: EPIP 1, EPIP 5

VALIDATION TIME: 30 minutes

MAX. TIME ALLOWED: 15 minutes to classify and 15 minutes to notify

PERFORMANCE TIME:

COMMENTS: _____

Additional comment sheets attached? YES ___ NO ___

RESULTS: SATISFACTORY ___ UNSATISFACTORY ___

SIGNATURE: _____ DATE: _____

EXAMINER

Classroom

INITIAL CONDITIONS: You are the SHIFT MANAGER. Unit 1 was at 100% power. A Control Rod Drift occurred last shift and Chemistry sampling indicates 350 $\mu\text{Ci/gm}$ dose equivalent Iodine-131. An Alert 1.3-A was declared one hour ago. A Unit 1 shutdown was in progress when high vibrations on Reactor Recirculation Pump 1A occurred along with a seal failure. Drywell Unidentified Leakage has been calculated at 125 gpm from a primary system.

A Reactor SCRAM was immediately inserted and the following conditions exist:

Reactor Level	-40 inches and slowly lowering
Reactor Pressure	950 psig and stable
DW Pressure	4.50 psig and rising
DW Temperature	210°F and rising
DW Radiation	1-RE-90-272A and 273A reading 2000 R/Hr and slowly rising
Torus Temperature	94° F
Torus Pressure	3.5 psig
Torus Level	-2 inches on normal band
PCIS Isolation Group 3	Is NOT complete, RWCU Valves 69-1 and 69-2 failed to close and all attempts to close the RWCU Valves have been unsuccessful.
RWCU HX Area	135°F and stable
RWCU System Area 90-9A	750 mrem/hr and stable
Wind Speed	8 mph
Wind Direction	2°

INITIATING CUE: Classify the event and complete initial notification.

JPM is Time Critical

START TIME _____

Performance Step 1:

Critical Not Critical

Refers to EPIP 1 to classify emergency event.

Standard:

SHIFT MANAGER refers to EPIP 1 and declares a General Emergency 8.4-G based on Loss of any two barriers and potential loss of third barrier.

SAT__ UNSAT__ N/A__ COMMENTS: _____

TIME Classified _____

Performance Step 2:

Critical _ Not Critical

Implements EPIP-5 GENERAL EMERGENCY.

Standard:

SHIFT MANAGER recognizes/implements a GENERAL EMERGENCY IAW EPIP-5.

SAT__ UNSAT__ N/A__ COMMENTS: _____

START TIME _____

Performance Step 3: Critical Not Critical

Completes Appendix A of EPIP 5

Standard:

Shift Manager completes Appendix A of EPIP 5 within 15 minutes of event classification

SAT__ UNSAT__ N/A__ COMMENTS: _____

TIME Appendix A Complete _____

Performance Step 4: Critical Not Critical

Completes Appendix A of EPIP 5

Standard:

Following are Critical portions of Appendix A: EAL Designator 8.4-G, Time Event declared, Wind Speed is 8 mph and wind direction is 2°. PAR is recommendation 2 from 327° - 3°.

SAT__ UNSAT__ N/A__ COMMENTS: _____

END OF TASK

INITIAL CONDITIONS: You are the SHIFT MANAGER. Unit 1 was at 100% power. A Control Rod Drift occurred last shift and Chemistry sampling indicates 350 $\mu\text{Ci/gm}$ dose equivalent Iodine-131. An Alert 1.3-A was declared one hour ago. A Unit 1 shutdown was in progress when high vibrations on Reactor Recirculation Pump 1A occurred along with a seal failure. Drywell Unidentified Leakage has been calculated at 125 gpm from a primary system.

A Reactor SCRAM was immediately inserted and the following conditions exist:

Reactor Level	-40 inches and slowly lowering
Reactor Pressure	950 psig and stable
DW Pressure	4.50 psig and rising
DW Temperature	210°F and rising
DW Radiation	1-RE-90-272A and 273A reading 2000 R/Hr and slowly rising
Torus Temperature	94° F
Torus Pressure	3.5 psig
Torus Level	-2 inches on normal band
PCIS Isolation Group 3	Is NOT complete, RWCU Valves 69-1 and 69-2 failed to close and all attempts to close the RWCU Valves have been unsuccessful.
RWCU HX Area	135°F and stable
RWCU System Area 90-9A	750 mrem/hr and stable
Wind Speed	8 mph
Wind Direction	2°

INITIATING CUE: Classify the event and complete initial notification.

JPM is Time Critical