OPERATOR: _____

SRO ____ DATE: _____

JPM NUMBER: Admin SRO A1a

TASK NUMBER: U-000-SU-06

TASK TITLE: Drain Log 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 X

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 X 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 X 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 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: _____

_____

****

Performance Step 8: Critical X 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		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)	LIMITS (AC)	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						
	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		Review Init	
Preferred reading times are 0800, 1200 and 1600	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)	LIMITS (AC)	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						
	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		Review Init	
Preferred reading times are 0800, 1200 and 1600	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)	LIMITS (AC)	UO	Unit Supvr (Note 4)
Friday	41647	39756	1891	0800	0800	1440	1.31	1.39	2.70		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**			
										Col. I.2 ≤ 30.0 gpm		
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: Admin RO A1a

TASK NUMBER: U-000-SU-06

TASK TITLE: Drain Log 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

VALDATION TIME: 15 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:

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.

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Class Room

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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 X

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 X 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 X 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		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)	LIMITS (AC)	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						
	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		Review Init	
Preferred reading times are 0800, 1200 and 1600	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)	LIMITS (AC)	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						
	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		Review Init	
Preferred reading times are 0800, 1200 and 1600	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)	LIMITS (AC)	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						
	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		Review Init	
Preferred reading times are 0800, 1200 and 1600	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)	LIMITS (AC)	UO	Unit Supvr (Note 4)
Friday	41647	39756	1891	0800	0800	1440	1.31	1.39	2.70		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**			
										Col. I.2 ≤ 30.0 gpm		
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: Admin RO/SRO A1b

TASK NUMBER: Conduct of Operations

TASK TITLE: Core Alts

K/A NUMBER: 2.1.36 K/A RATING: RO 3.0 SRO 4.1

TASK STANDARD: Completion of SRM Operability surveillance.

LOCATION OF PERFORMANCE: Class Room

REFERENCES/PROCEDURES NEEDED: 1-SR-3.3.1.2.4

VALIDATION 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: You are a Reactor Operator on Unit 1. Unit 1 is in Mode 5, core alterations have been suspended for the past 12 hours due to bridge problems. Core quadrant A fuel moves are complete for the current off load schedule. No fuel assemblies remain adjacent to SRM A, but 16 fuel assemblies remain in quadrant A. Core quadrants B, C, and D are completely fueled.

Bridge repairs are complete, core alterations are scheduled to commence **only** in core quadrant B for the next 24 hours. Core Alts can commence upon completion of 1-SR-3.3.1.2.4 Source Range Monitor System Count Rate and Signal to Noise Ratio Check. All data for 1-SR-3.3.1.2.4 has been obtained.

INITIATING CUE: The Unit Supervisor directs you to complete **all** the calculations and acceptance criteria steps in 1-SR-3.3.1.2.4 and notify him of the results of the acceptance criteria..

****

Class Room

****

INITIAL CONDITIONS: You are a Reactor Operator on Unit 1. Unit 1 is in Mode 5, core alterations have been suspended for the past 12 hours due to bridge problems. Core quadrant A fuel moves are complete for the current off load schedule. No fuel assemblies remain adjacent to SRM A, but 16 fuel assemblies remain in quadrant A. Core quadrants B, C, and D are completely fueled.

Bridge repairs are complete, core alterations are scheduled to commence **only** in core quadrant B for the next 24 hours. Core Alts can commence upon completion of 1-SR-3.3.1.2.4 Source Range Monitor System Count Rate and Signal to Noise Ratio Check. All data for 1-SR-3.3.1.2.4 has been obtained.

INITIATING CUE: The Unit Supervisor directs you to complete **all** the calculations and acceptance criteria steps in 1-SR-3.3.1.2.4 and notify him of the results of the acceptance criteria..

START TIME_____

****

Performance Step 1: *Critical X Not Critical

7.2.1 SRM A Count Rate and Signal to Noise Ratio Check Steps

[8] **COMPUTE** the signal to noise ratio as follows **AND RECORD** results below:

Reading from Step 7.2.1[7]– Reading from Step 7.2.1[5]
Reading from Step7.2.1[5]

The signal to noise ratio is_____.

*[9] **VERIFY** signal to noise ratio is > 3.

[10] **IF** applicable,

[11] **UN-BYPASS** SRM (**OR** FLC) A.

*[12] **VERIFY** that SRM A has ≥3 cps, **OR VERIFY** that ≤ 4 fuel assemblies are adjacent to the SRM **AND NO** other fuel assemblies in the associated core quadrant.

Standard:

Calculates a signal to noise ratio of 24 and initials acceptance criteria for step 9. **Determines that SRM has less than the required 3 cps with fuel assemblies loaded in core quadrant A. Does not initial acceptance criteria for step 12.**

SAT__ UNSAT___ N/A ___COMMENTS:_____

****

Performance Step 2: *Critical X Not Critical

7.2.2 SRM B Count Rate and Signal to Noise Ratio Check Steps

[8] **COMPUTE** the signal to noise ratio as follows **AND RECORD** results below:

Reading in Step 7.2.2[7]– Reading in Step 7.2.2[5]
Reading in Step7.2.2[5]

The signal to noise ratio is_____.

*[9] **VERIFY** signal to noise ratio is > 3.

[10] **IF** applicable,

[11] **UN-BYPASS** SRM (**OR** FLC) B.

*[12] **VERIFY** that SRM B has ≥3 cps, **OR VERIFY** that ≤ 4 fuel assemblies are adjacent to the SRM **AND NO** other fuel assemblies in the associated core quadrant.

Standard:

Calculates a signal to noise ratio of 9 and verifies >3. Verifies SRM B has ≥ 3cps. Initials acceptance criteria for step 9 and step 12.

SAT___ UNSAT___ N/A ___COMMENTS:_____
_____

****

Performance Step 3: *Critical X Not Critical

7.2.3 SRM C Count Rate and Signal to Noise Ratio Check Steps

[8] **COMPUTE** the signal to noise ratio as follows **AND RECORD** results below:

Reading in Step 7.2.3[7]– Reading in Step 7.2.3[5]
Reading in Step7.2.3[5]

The signal to noise ratio is_____.

*[9] **VERIFY** signal to noise ratio is > 3.

[10] **IF** applicable,

[11] **UN-BYPASS** SRM (**OR** FLC) C.

*[12] **VERIFY** that SRM C has ≥3 cps, **OR VERIFY** that ≤ 4 fuel assemblies are adjacent to the SRM **AND NO** other fuel assemblies in the associated core quadrant.

Standard:

Calculates a signal to noise ratio of 2.75, determines that the ratio is less than 3 cps and does not initial acceptance criteria for step 9 . Verifies SRM C has ≥ 3cps and initials acceptance criteria for step 12.

SAT___ UNSAT___ N/A ___COMMENTS:_____
_____

****

Performance Step 4: *Critical X Not Critical

7.2.4 SRM D Count Rate and Signal to Noise Ratio Check Steps

[8] **COMPUTE** the signal to noise ratio as follows **AND RECORD** results below:

Reading in Step 7.2.4[7]– Reading in Step 7.2.4[5]
Reading in Step7.2.4[5]

The signal to noise ratio is_____.

*[9] **VERIFY** signal to noise ratio is > 3.

[10] **IF** applicable, **THEN**

[11] **UN-BYPASS** SRM (**OR** FLC) D.

*[12] **VERIFY** that SRM D has ≥3 cps, **OR VERIFY** that ≤ 4 fuel assemblies are adjacent to the SRM **AND NO** other fuel assemblies in the associated core quadrant.

Standard:

Calculates a signal to noise ratio of 8 and verifies >3. Verifies SRM D has ≥ 3cps. Initials acceptance criteria for step 9 and step 12.

SAT___ UNSAT___ N/A ___COMMENTS:_____
_____

****

Performance Step 5: *Critical X Not Critical

NOTES

1) The following section is required to be performed every 12 hours while core alterations are in progress and within 12 hours prior to the beginning of core alterations. One SRM may be used to satisfy more than one of the following conditions.

2) SRM Operability is established when the count rate ≥ 3 cps with a signal-to-noise ratio ≥ 3:1 (not required when ≤ 4 fuel assemblies adjacent to the SRM and no other fuel assemblies in the associated core quadrant) Step 7.4[2] may be N/A'ed for each core quad where no core alterations are being performed and none expected within the next 12 hours.

7.4 SRM Operability Verification

[1] **COMPLETE** the following table by answering yes or no for each question for each core quadrant (Reference the previous procedure steps just completed).

Quad A	Quad B	Quad C	Quad D	
				Was count rate ≥ 3 cps?
				Was signal-to-noise ratio ≥ 3:1?
				Is the quadrant a fueled region?
				Are core alterations being performed or expected within the next 12 hours?

Standard:

Quad A	Quad B	Quad C	Quad D	
*NO	yes	yes	yes	- ≥ 3 cps
yes	yes	*NO	yes	- ≥ 3:1 signal to noise
yes	yes	yes	yes	- quadrant fueled
no	yes	no	no	- are core alts being performed in the next 12 hours

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

****

Performance Step 6: *Critical X Not Critical

*[2] **VERIFY** an operable SRM detector is located in each core quadrant in which core alterations are being performed (**OR** planned within 12 hours) **AND** an adjacent core quadrant. **CHECK MARK** the appropriate operable SRMs for each core Quad:

IF Quad A, **THEN** SRM A ☐ and either SRM B ☐ or SRM D ☐ _____(AC)

IF Quad B, **THEN** SRM B ☐ and either SRM A ☐ or SRM C ☐ _____(AC)

IF Quad C, **THEN** SRM C ☐ and either SRM B ☐ or SRM D ☐ _____(AC)

IF Quad D, **THEN** SRM D ☐ and either SRM A ☐ or SRM C ☐ _____(AC)

Standard:

Completes Step 14 for a minimum of Quadrant B, determines acceptance criteria not met and does not initial for acceptance criteria met.

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

CUE: If needed can ask Candidate if acceptance criteria is met for any core quadrant.

NOTE: NO CORE Alterations can commence

****

Performance Step 7: Critical Not Critical X

7.5 Completions and Notifications

[2] On the Surveillance Task Sheet (STS)

- **Record** the Completion Date & Time.
- **Review** and **Complete** the Surveillance Task Sheet (STS) through the Test Director/Lead Perform & Date fields.

[3] **NOTIFY** UO that this SR test procedure is complete.

[4] **NOTIFY** US that this SR test procedure is complete.

Standard:

Critical Step: completes Attachment 1 and marks NO for acceptance criteria satisfied. Notifies UO and US.

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

CUE: Acknowledge communication as Unit Operator and Unit Supervisor

END OF TASK

STOP TIME ___

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: Admin RO A2 U2

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 and Operating Instruction System Lineup Checklist for UNID's

VALIDATION TIME: 30 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: 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. Include Unique Identifier Numbers (UNID's).

****

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. Include Unique Identifier Numbers (UNID's).

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, Operating Instructions for Unique Identifier Numbers (UNID's).

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 X 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 X 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 X 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: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: Admin RO A2 U3

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 and Operating Instruction System Lineup Checklist for UNID's

VALIDATION TIME: 30 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: 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. Include Unique Identifier Numbers (UNID's).

****

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. Include Unique Identifier Numbers (UNID's).

START TIME _____

****

Performance Step 1: Critical _ Not Critical X

Review prints and/or procedures to determine required isolation boundary: 3-47E803-1, 3-45E753-3, 0-OI-57B Att. 3I, Operating Instructions for Unique Identifier Numbers (UNID's).

Standard:

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

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

****

Performance Step 2: Critical X 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 X 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 X

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 X Not Critical

Determines Isolation boundary

Standard:

RFPT Seal Injection Pump 3B Power Supply, 480V TMOV Board 3B Breaker 9B Open with Red Tag, UNID 3-BKR-3-69

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

****

Performance Step 6: Critical _ Not Critical X

May include: Raw Cooling Water which supplies the Seal Water Cooler

Standard:

3-SHV-24-635B, 3-SHV-24-636B, and 3-SHV-24-637B

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

NOTE: RAW Cooling Water applies to Unit 3 ONLY, Not Critical to identify

END OF TASK

STOP TIME _____

OPERATOR: _____

SRO ____ DATE: _____

JPM NUMBER: Admin SRO A2

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 E required actions 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

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 and applicable Technical Specification actions have been addressed. 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 most limiting Technical Specification required actions.

****

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 and applicable Technical Specification actions have been addressed. 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 most limiting 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 X 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 E required action E.1 completion time 8 hours. Condition E most limiting.

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

****

Performance Step 4: Critical _ Not Critical X

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

OPERATOR: _____

RO ____ SRO ____ DATE: _____

JPM NUMBER: Admin RO A3

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: 15 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 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 zero dose to date. You have been briefed to the radiological hazards associated with this evolution per appendix A of the applicable EPIP.

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 zero dose to date. You have been briefed to the radiological hazards associated with this evolution per appendix A of the applicable EPIP.

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 X 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 X 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: _____

_____

NRC Information: Reference is EPIP 15 Section 3.4.5

****

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: Admin SRO A3

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 zero dose to date. Brian Smith has been briefed to the radiological hazards associated with this evolution per appendix A of the applicable EPIP.

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 zero dose to date. Brian Smith has been briefed to the radiological hazards associated with this evolution per appendix A of the applicable EPIP.

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 X 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 X 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

NRC Information: Reference is EPIP 15 Section 3.4.5

****

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 ___

APPENDIX B
Page 1 of 1

ACKNOWLEDGMENT AND AUTHORIZATION TO EXCEED OCCUPATIONAL DOSE LIMITS

READ THE FOLLOWING STATEMENT BEFORE SIGNING THIS FORM:

I acknowledge by signature on this form that I am volunteering for exposures in excess of 10 CFR 20.1201 limits and that I have been made aware through training or a briefing of the risks involved. Briefing material was presented from Appendix A of this procedure.

The persons listed below have acknowledged and volunteered to receive dose limits in excess of 10CFR20.1201 limits. Authorization is required by the Site Emergency Director to administer any emergency exposure limit. Authorization is acknowledged by Site Emergency Director signature on the bottom of this form.

Name (Please print Last, First, MI)	Employee Identification Number (EIN)	Signature	Dose Limit (Rem)
Brian Smith	000-00-0000		

Brief Description of Task: _____

_____

Authorized by : _____ / _____

Site Emergency Director Time/Date

LAST PAGE

OPERATOR: _____

SRO ____ DATE: _____

JPM NUMBER: Admin SRO A4

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

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 μCi/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 form.

JPM is Time Critical

****

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 μCi/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.

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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 form.

JPM is Time Critical

START TIME_____

****

Performance Step 1: Critical X Not Critical

Refers to EPIP 1 to classify emergency event.

Standard:

SHIFT MANAGER refers to EPIP 1and declares a General Emergency 8.4-G based on Loss of any two barriers and potential loss of third barrier within 15 minutes from receiving initial conditions.

SAT___ UNSAT___ N/A ___COMMENTS:_____

_____

TIME Classified _____

****

Performance Step 2: Critical _ Not Critical X

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 X 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 X 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