Facility: Vermont Yankee Date of Examination: 10/3/03
Examination Level (circle one): **RO** / SRO Operating Test Number: 1

Administrative Topic ~~/Subject Description~~ (see Note)	Describe activity to be performed ~~method of evaluation:~~ ~~1. ONE Administrative JPM, OR~~ ~~2. TWO Administrative Questions~~
~~A.1~~ •Conduct of Operations	Isolate leaking RHR piping weld leak (New) Generic 2.1.24 **Ability to obtain and interpret station electrical and mechanical drawings.** (CFR: 45.12 / 45.13) IMPORTANCE RO 2.8
~~A.2~~ •Conduct of Operations	Preparation of Control Room Shift Turnover Checklist, HPCI flow control setpoint tape not properly set (New) Generic 2.1.3 **Knowledge of shift turnover practices.** (CFR: 41.10 / 45.13) IMPORTANCE RO 3.0
~~A.3~~ •Equipment Control	Perform Secondary Containment Capability Test (New) Generic 2.2.12 **Knowledge of surveillance procedures** (CFR 41.10 / 45.13) Importance RO 3.0
~~A.4~~ •Emergency Plan	Control Room Emergency Communications Check (New) Generic 2.4.43 **Knowledge of emergency communication systems and techniques** (CFR: 45.13) Importance RO 2.8
NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.	

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Perform Secondary Containment Capability Test
Failure Mode: Hi total D/P on SGT filter system
Reference: OP 4116
Task Number: 2617050201

Task Performance: AO/RO/SRO ___ RO/SRO Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X___

Time Critical: Yes ___ No _X___

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: N/A

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/15/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure.

After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

"B" SGT system is running in accordance with OP 4116 section "A" Secondary Containment Capability Test.

Initiating Cues:

The CRS directs you to perform the Secondary Containment Capability Test in accordance with OP 4116 Section "A" Step 9e. Steps 9a, b, c, and d are complete.

Task Standards:

Required data recorded. UNSAT D/P on DPI-10B identified and reported to the CRS

Required Materials:

VY Simulator, VYOPF 4116.01, VYOP 4116

Simulator Setup:

Simulator; Any IC
OP 4116 section A steps 9a, b, c, d completed (page 11)

Evaluation **Performance Step**

TIME START: _____

SAT/UNSAT **Step 1:** **Verify SGT flow stabilized**

Standard: Operator observes SGT B flow stabilized on B SGT flow indicator on CRP 9-26.

SAT/UNSAT **Step 2:** **Record SGT B CRP 9-26 flow on VYOPF 4116.01.**

Standard: SGT B flow from CRP 9-26 recorded on VYOPF 4116.01.

SAT/UNSAT **Step 3:** **Locally determine SGT B air flow with Dwyer Test Gauge.**

Standard: Operator directs RBAO to locally determine SGT B air flow with Dwyer Test Gauge and report it

---

Interim Cue: RBAO reports Dwyer Test GAUGE reading of 1445.0 CFM

SAT/UNSAT **Step 4:** **Record local air flow.**

Standard: Operator records local air flow on VYOPF-4116.01.

SAT/UNSAT **Step 5:** **Record time.**

Standard: Operator records time on VYOPF 4116.01.

SAT/UNSAT **Step 6:** **Read and record the eight millivolt readings from the refuel floor pressure transmitters.**

Standard: Operator reads and records four millivolt readings on PI-3A. and four millivolt readings on PI-3B (N,S,E,W on each instrument channel)

SAT/UNSAT **Step 7:** **Abort the test if any millivolt readings are negative.**

Standard: Operator continues with the test.

SAT/UNSAT **Step 8:** **On VYOPF 4116.01 record wind velocity and direction from backup met tower instruments on CRP 9-48 or from ERFIS METPAC screen (Upper wind speed and direction) .**

Standard: Operator records upper wind speed and direction from backup met tower or ERFIS METPAC screen on VYOPF 4116.01

SAT/UNSAT **Step 9:** **Record two additional sets of data from control room indications at approximately 1 minute intervals.**

Standard: Operator repeats steps 5,6,8 two more times at approximately 1 minute intervals (Three sets of data where VYOPF 4116.01 requires) .

SAT/UNSAT **Step 10 :** **Determine and record average milliviolt readings on VYOPF4116.01**

Standard: Operator determines and records on VYOPF 4116.01 the average of each of the three sets of millivolt readings .

SAT/UNSAT **Step 11 :** **Calculate the average vacuum from each of the three sets of readings.**

Standard: Operator calculates and **records** the average vacuum from each of the three sets of readings .(The form requires recording, the procedure omits the requirement)
Vacuum = (0.1 X mllivolts) – 3.0

SAT/UNSAT **Step 12 :** **Calculate and record the average reactor building vacuum .**

Standard: Operator averages the three vacuums and records the average on VYOPF 4116.01 .

SAT/UNSAT ***Step 13:** **If air flow is not 1425-1485 CFM adjust the running fan manual filter train outlet damper as necessary to achieve 1425-1485 CFM as indicated by the Dwyer test gauge.**

Standard: No adjustment directed Dwyer test gauge reported as 1445 in step 3.

SAT/UNSAT **Step 14:** **Record pressure drop across HEPA and charcoal banks on VYOPF 4116.01.**

Standard: Operator requests pressure drop data across HEPA and charcoal banks from RBAO and records on VYOPF 4116.01

Operator may identify the sum of dpi 8B/9B/10B as unsat at this time. Evaluation actually occurs in step 17.

Interim Cue: RBAO reports pressure drops as:
1.42 for dpi 7B
1.45 for dpi 8B
1.43 for dpi 9B
1.60 for dpi 10B

SAT/UNSAT **Step 15:** **Read amp readings on MCC 8A for the 9 KW heater and record on VYOPF 4116.01 .**

Standard: Operator requests 9 kw heater amp data from RBAO and records on VYOPF 4116.01

Interim Cue: RBAO reports amp readings on MCC 8A-2F-TOP-AM-3/2/1 as:
3 12.0 amps
2 13.5 amps
1 11.5 amps

SAT/UNSAT **Step 16:** **With REF-2B operating at a flow of 1425-1484 cfm, average reactor building vacuum >0.21 inches H2O, and SGT-2A/3A open, observe REF-2A is not rotating and record the results on VYOPF 4116.01**

Standard: Operator verifies flow 1425-1485 cfm
Average vacuum >0.21 inches H2O,
SGT-2A/3A open.
Then directs RBAO to report if REF-2A is rotating and records the results on VYOPF 4116.01. (no rotation is SAT)

SAT/UNSAT ***Step 17: Verify acceptance criteria on VYOPF 4116.01 is satisfited.**

Standard: Operator determines that total D/P (dpi-8 & 9 & 10) is greater than 4.0 inches H2O and is **UNSAT** and reports to the CRS .

TIME FINISH: _____

Terminating Cue: SGT B total D/P reported to the CRS as UNSAT.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.2.12 Knowledge of surveillance procedures.**

(CFR: 41.10,45.13)

IMPORTANCE **RO 3.0** **SRO 3.4**

Tear-Out Sheet

Initial Conditions:

"B" SGT system is running in accordance with OP 4116 section "A" Secondary Containment Capability Test.

Initiating Cues:

The CRS directs you to perform the Secondary Containment Capability Test in accordance with OP 4116 Section "A" Step 9e. Steps 9 a, b, c, and d are complete.

LPC 10

9. If SGTS B is to be tested, use SGTS B to perform the secondary containment capability test as follows:

a. Align SGT train B inlet and outlet valves as follows:

1) Close/check closed SGT-2B INLET ISOLATION.

2) Close/check closed SGT-3B DISCH ISOLATION.

3) Open SGT-1B INLET BYPASS.

b. Start REF-2B.

1) Verify SGT-2B INLET ISOLATION opens.

2) Verify SGT-3B DISCH ISOLATION opens.

3) Verify EUH-4 SBGT-B ELEC HTR energized (red light lit and green light off). (ER960669_07 and ER961031_01)

4) Verify stopped or shutdown REF-2A.

5) Close/check closed SGT-1A INLET BYPASS.

6) Open/check open SGT-2A INLET ISOLATION.

7) Open/check open SGT-3A DISCH ISOLATION.

LPC 10

c. Shutdown/verify shutdown the Reactor building HVAC fans per OP 2192.

d. Close/verify closed:

LPC 10

- HVAC-9 RB VENT SUPPLY
- HVAC-10 RB VENT SUPPLY
- HVAC-11 RB VENT EXHAUST
- HVAC-12 RB VEST EXHAUST

e. When SGTS flow rate as indicated on CRP 9-26 stabilizes, record as-found condition as follows: (EPC_9510)

1) Record the flow data from CRP 9-26 instrument on VYOPF 4116.01.

2) Locally determine SGT air flow using the Dwyer Test Gauge per VYOPF 4116.07.

3) Record Air Flow on VYOPF 4116.01.

4) Record the time on VYOPF 4116.01.

5) Read and record on VYOPF 4116.01, the millivolt reading of each of the eight Refueling Floor pressure transmitters.

NOTE

A negative indication on the meter means that atmospheric pressure inside the Reactor Building is higher than outside atmospheric pressure on that side of the Reactor Building. If this condition exists, the acceptance criteria will not be met.

---

6) If any of the millivolt readings are negative:

   a) Abort the test and restore normal alignment per steps A.11 through A.20.

   b) Determine reason.

7) On VYOPF 4116.01, record wind velocity and direction from backup met tower instruments on CRP 9-48 or from upper wind speed/direction on ERFIS METPAC screen.

8) On VYOPF 4116.01, record two additional sets of millivolt readings, wind velocity, and wind direction at approximately one minute intervals.

9) Determine the average of the eight millivolt readings, V.

   a) Record the average transmitter millivolt value, V, on VYOPF 4116.01.

10) Calculate the average vacuum from the average millivolt reading for each set of readings using the following equation:

$$P = [0.1\ V] - 3.0$$

where: P = Average Reactor Building vacuum in inches of water (negative value means positive pressure).

V = Average of the transmitter millivolt output.

11) Calculate the RB Average Test Vacuum.

   a) Record the RB Average Test Vacuum On VYOPF 4116.01

LPC 10

f. If Air Flow is not 1425-1485 cfm, adjust the running fan manual filter train outlet damper, as necessary to achieve 1425 to 1485 cfm as indicated by the Dwyer Test Gauge.

1) Adjust the B SGT fan manual filter train outlet damper.

2) Locally determine SGT air flow using the Dwyer Test Gauge per VYOPF 4116.07.

a) Repeat steps d.1) and d.2) until 1425-1485 cfm flow is achieved.

3) If the filter train outlet damper required adjustment, proceed as follows:

a) Record Air Flow on VYOPF 4116.01

b) Record the time on VYOPF 4116.01

c) Read and record on VYOPF 4116.01, the millivolt reading of each of the eight Refueling Floor pressure transmitters.

NOTE

A negative indication on the meter means that atmospheric pressure inside the Reactor Building is higher than outside atmospheric pressure on that side of the Reactor Building. If this condition exists, the acceptance criteria will not be met.

---

d) If any of the millivolt readings are negative:

1. Abort the test and restore normal alignment per steps A.11 through A.20.

2. Determine reason.

e) On VYOPF 4116.01, record wind velocity and direction from backup met tower instruments on CRP 9-48 or from upper wind speed/direction on ERFIS METPAC screen.

f) On VYOPF 4116.01, record two additional sets of millivolt readings, wind velocity, and wind direction at approximately one minute intervals.

g) Determine the average of the eight millivolt readings, V.

1. Record the average transmitter millivolt value, V, on VYOPF 4116.01.

SECONDARY CONTAINMENT CAPABILITY CHECK

DATE_____

WO #_____

FREQUENCY: Quarterly OTHER (SPECIFY)_____

4. Secondary containment established per OP 2116. _____

5. Reactor Building railroad door position. Circle one for each door.

Inboard Door	Open	Closed	_____
Outboard Door	Open	Closed	_____

6. List RRUs placed in manual. _____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

8.f REF-2A As-Found

Time	Indicated Flow cfm	Air Flow per VYOPF 4116.07 cfm	Millivolt Readings PI-3A N	PI-3A S	PI-3A E	PI-3A W	PI-3B N	PI-3B S	PI-3B E	PI-3B W	Avg. (V)	Wind Velocity	Wind Direction	RB Test Vacuum In H_2O (P)	Initials
									REF-2A RB Average Test Vacuum						

8.g.3 REF-2A As-Left (required if filter train manual outlet damper was adjusted)

Time	Indicated Flow cfm	Air Flow per VYOPF 4116.07 cfm	Millivolt Readings PI-3A N	PI-3A S	PI-3A E	PI-3A W	PI-3B N	PI-3B S	PI-3B E	PI-3B W	Avg. (V)	Wind Velocity	Wind Direction	RB Test Vacuum In H_2O (P)	Initials
									REF-2A RB Average Test Vacuum						

8.h Pressure drop across HEPA and charcoal banks

dPI-7A	H_2O	2.0 Max.

dPI-8A	_____ H_2O	2.0 Max.
dPI-9A	_____ H_2O	2.0 Max.
dPI-10A	_____ H_2O	2.0 Max.
Total D/P (dPI-8+9+10)	_____ H_2O	4.0 Max.

LPC 3

8.i 9KW heater EUH-2 amp readings

	1	2	3
9A-2D-TOP-AM-1/2/3			

8.j.1) REF-2B not rotating while REF-2A is operating at 1425-1485 cfm and maintaining Reactor Building average vacuum at least 0.21 inches H_2O with SGT-2B/3B open: SAT / UNSAT _____ Initials

9.C REF-2B As-Found

Time	Indicated Flow cfm	Air Flow per VYOPF 4116.07 cfm	Millivolt Readings PI-3A N	PI-3A S	PI-3A E	PI-3A W	PI-3B N	PI-3B S	PI-3B E	PI-3B W	Avg. (V)	Wind Velocity	Wind Direction	RB Test Vacuum In H_2O (P)	Initials
			REF-2B RB Average Test Vacuum												

9.d.3) REF-2B As-Left (required if filter train manual outlet damper was adjusted)

Time	Indicated Flow cfm	Air Flow per VYOPF 4116.07 cfm	Millivolt Readings PI-3A N	PI-3A S	PI-3A E	PI-3A W	PI-3B N	PI-3B S	PI-3B E	PI-3B W	Avg. (V)	Wind Velocity	Wind Direction	RB Test Vacuum In H_2O (P)	Initials
			REF-2B RB Average Test Vacuum												

9.e Pressure drop across HEPA and charcoal banks

dPI-7B	H_2O	2.0 Max.

dPI-8B	_____ H_2O	2.0 Max.
dPI-9B	_____ H_2O	2.0 Max.
dPI-10B	_____ H_2O	2.0 Max.
Total D/P (dPI-8+9+10)	_____ H_2O	4.0 Max.

9.f 9KW heater EUH-4 amp readings

	3	2	1
8A-2F-TOP-AM-3/2/1			

9.g.1) REF-2A not rotating while REF-2B is operating at 1425-1485 cfm and maintaining Reactor Building vacuum at least 0.21 inches H_2O with SGT-2A/3A open: SAT / UNSAT _____ Initials

ACCEPTANCE CRITERIA:

1. SGT train maintains an average reactor building test vacuum of at least 0.21 inches H_2O. (Tech. Spec. minimum limit is 0.15 inches H_2O 0.21 includes instrument uncertainty). (PFI932202OP1) (ER990059)
2. Every side of the building is maintained negative to the outside atmosphere with a filter train flow rate not more than 1485 cfm. (No negative milli-volt readings obtained.)
3. Air Flowrate between 1425 and 1485 cfm verifies open operability of SGT train check valve SGT-7A(B). (IST Rqmt.) (Includes instrument uncertainty for 1500 scfm TS Limit)
4. D/P across any individual filter or the demister is less than 2 inches H_2O.
5. Total D/P across filters is less than 4 inches H_2O (Tech. Spec. maximum limit is 6 inches H_2O). (PFI932202OP1)
6. REF-2A/B not rotating while REF-2B/2A is operating at 1425-1485 cfm and obtaining at least 0.21 inches H_2O with SGT-2B/3B/SGT-2A/3A open. [Verifies closure operability of SGT-7A(B) (IST Rqmt.)]
7. Associated SGT train 9KW heater EUH-2(4) energized when REF-2A(B) started. (ER960669_07 and ER961031_01)
8. 9KW heater amps for EUH-2(4) indicate approximately 10 amps for each phase (need to confirm current flow in all three phases). (OE 8344)

Test Remarks:

Performed By*_____ / _____ / _____
Operator (Print/Sign) Time Date

LPC 12

Second Operator
System Verif. in Normal Standby_____ / _____
Operator (Print/Sign) Date

* Record performance of capability check on all outstanding Barrier Control Permit (VYAPF 0077.01) Affecting Secondary Containment tracking section located in the Barrier Control Permit Log Book in the Control Room. (ER971443)

LPC 7

SECONDARY CONTAINMENT CAPABILITY CHECK (Continued)

LPC 12

IST Component	Test Type	Test Methodology	Results of STA IST Evaluation	
			SAT	UNSAT
SGT-7A	SO	REF-2A flow rate ≥1425 cfm verifies open operability of SGT-7A.		
SGT-7B	SC	REF-2A flow 1425-1485 cfm and maintaining Reactor Building average vacuum at least 0.21 inches H_2O with SGT-2B/3B open, verifies closure operability of SGT-7B.		
SGT-7B	SO	REF-2B flow rate ≥1425 cfm verifies open operability of SGT-7B.		
SGT-7A	SC	REF-2B flow 1425-1485 cfm and maintaining Reactor Building average vacuum at least 0.21 inches H_2O with SGT-2A/3A open, verifies closure operability of SGT-7A.		

LPC 6 + 12

Secondary Containment Capability Calculation(s) Verified and IST Data Evaluated By

_____ / _____ / _____

Shift Technical Advisor (Print/Sign) Time Date

LPC 12

Evaluated By _____ / _____

Shift Manager (Print/Sign) Date

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Control Room Emergency Communications Check
Failure Mode: N/A
Reference: OP 3506
Task Number: 2857080101

Task Performance: AO/RO/SRO ___ RO/SRO Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X___

Time Critical: Yes ___ No _X___

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: N/A

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/15/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure.

After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

Power operation

Initiating Cues:

The Control Room Supervisor directs you to perform the emergency communications check in accordance with OP 3506 Section A. Tri-State Mutual Aid and Southwest Fire and Mutual Aid and Tri-State Fire and Mutual Aid testing was completed yesterday.

Task Standards:

Each required agency contacted, form completed

Required Materials:

Simulator
E-Plan Procedures
VYOPF 3506.01, Pages 1 & 2, Step C marked complete already

Simulator Setup:

Any IC
Booth operator to respond for agencies called and AOs

Evaluation	Performance Step	
	TIME START: _____	
SAT/UNSAT	**Step 1:**	**OP 3506 obtained and reviews discussion section**
	Standard:	Discussion section reviewed.
SAT/UNSAT	* **Step 2:**	**Lift handset, dial 213. Inform the Vermont State Police who you are, and that you are testing the nuclear alert system. Request call back. Hang up.**
	Standard:	Vermont State Police notified, call back completed. Simulator operator call back when requested

---

Interim Cue: All calls made on the orange phone in the simulator go to the instructor booth.

Simulator operator call back as Vermont State, Mass or NH Police when asked to.

SAT/UNSAT	**Step 3:**	**Record successful Vermont test on 3506.01.**
	Standard:	Vermont marked "yes" on 3506.01 (2)
SAT/UNSAT	* **Step 4:**	**Lift handset, dial 210. Inform the Massachusetts State Police who you are, and that you are testing the nuclear alert system. Request call back. Hang up.**
	Standard:	Massachusetts State Police notified, call back completed. Simulator operator call back when requested
SAT/UNSAT	**Step 5:**	**Record successful Massachusetts test on 3506.01.**
	Standard:	Massachusetts marked "yes" on 3506.01 (2)
SAT/UNSAT	* **Step 6:**	**Lift handset, dial 212. Inform the New Hampshire State Police who you are, and that you are testing the nuclear alert system. Request call back. Hang up.**
	Standard:	New Hampshire State Police notified, call back completed. Simulator operator call back when requested

SAT/UNSAT **Step 7: Record successful New Hampshire test on 3506.01.**

Standard: New Hampshire marked "yes" on 3506.01 (2)

SAT/UNSAT * **Step 8: Lift handset, dial 111. Inform all three states of group call test.**

Standard: All three states respond to group call.

Interim Cue: Tell applicant in simulator 111 = 11

SAT/UNSAT **Step 9: Record successful group call on 3506.01.**

Standard: Group call marked "yes" on 3506.01

SAT/UNSAT **Step 10: NRC FTS phone handset lifted and dial tone listened for.**

Standard: Handset lifted, dial tone heard.

SAT/UNSAT * **Step 11: Dial NRC using all 11 digits.**

Standard: NRC dialed.

Interim Cue: Ensure number on the Simulator phone base is called and NOT the real NRC number (4050 simulator). Simulator booth operator VY Control to NRC button.

SAT/UNSAT **Step 12: State name, location, and fact of testing NRC ENS. Request call back at 4262.**

Standard: NRC called and call back requested. NRC marked "yes" on 3506.01(2).

Interim Cue: Ensure call back is simulator phone extension and NOT the real control room (4262 NRC button in booth)

SAT/UNSAT * **Step 13:** **Turn the Page Sys Volume and Alarm Tone Select switch to the ALERT position. Make the following announcement over the Gaitronics: "Attention all personnel, attention all personnel, the following is a test of the Emergency Alert and the Emergency Evacuation Alarms, please disregard." Repeat the announcement.**

Standard: Announcement made.

SAT/UNSAT * **Step 14:** **Turn the Alarm Tone Control switch to the ON position for three seconds, then return the switch to the OFF position.**

Standard: Alarm Tone Control turned ON for 3 seconds and then OFF.

SAT/UNSAT **Step 15:** **Turn the Page Sys Volume and Alarm Tone Control Select switch to the OFF position.**

Standard: Page Sys Volume and Alarm Tone Control switch in OFF.

SAT/UNSAT * **Step 16:** **Turn the Page Sys Volume and Alarm Tone Control Select switch to the EVACUATION position.**

Standard: Page Sys Volume and Alarm Tone Control switch in EVACUATE.

SAT/UNSAT * **Step 17:** **Turn the Alarm Tone Control switch to the ON position for three seconds, then return the switch to the OFF position.**

Standard: Alarm Tone Control switch ON for 3 seconds and then OFF.

SAT/UNSAT * **Step 18:** **Make the following announcement over the page system: "Testing of the Emergency Alert and the Emergency Evacuation Alarms is complete. Regard all further alarms"**

Standard: Announcement made.

SAT/UNSAT **Step 19:** **Turn the Page Sys Volume and Alarm Tone Control switch to the OFF position.**

Standard: Page Sys Volume and Alarm Tone Control Select switch in OFF.

SAT/UNSAT * **Step 20:** **Contact the on shift Auxiliary Operators and verify that they heard both the alarm announcements and alarm signals.**

Standard: AOs contacted.

Interim Cue: When AOs are paged, the **simulator operator** will report both announcements heard.

SAT/UNSAT **Step 21:** **Route VYOPF 3506.01 to the Shift Manager for review.**

Standard: Form completed and turned into the Shift Manager.

* Critical Step

TIME FINISH: _____

Terminating Cue: 3506.01 completed and turned into the Shift Supervisor.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.4.43 Knowledge of emergency communications systems and techniques**

(CFR: 45.13)

IMPORTANCE **RO 2.8**

Tear-Out Sheet

Initial Conditions:

Power operation

Initiating Cues:

The Control Room Supervisor directs you to perform the emergency communications check in accordance with OP 3506 Section A. Tri-State Mutual Aid and Southwest Fire and Mutual Aid and Tri-State Fire and Mutual Aid testing was completed yesterday.

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Isolate Leaking RHR Pipe Weld
Failure Mode: N/A
Reference: P&ID G191172 / G191299 / G191301
Task Number: 2990100304 (AO Task)

Task Performance: AO/RO/SRO ___ RO/SRO Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X___

Time Critical: Yes ___ No _X___

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: N/A

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/15/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure.

After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

The plant is operating at full power. No equipment is out of service.

Initiating Cues:

A crack/leak has been reported by the RBAO to the Shift Manager on RHR-V10-49C. The leak is on the pump side of the valve (C RHR pump vent). The Shift Manager directs you to identify mechanical and electrical components to isolate, vent, and drain the pump using controlled station mechanical and electrical drawings

Task Standards:

P-10-1C Breaker identified
P-10-1C Pump Isolation Vent, Drain Vales identified
MOV Breakers identified
No steps are sequence critical, the control authority will determine the tagging sequence

Required Materials:

Controlled Prints/CWDs

Simulator Setup:

Any IC, need controlled prints, can be done in any setting with controlled prints available

Evaluation	Performance Step
	TIME START: _____
SAT/UNSAT	**Step 1: Determine correct print for RHR system.**
	Standard: Operator determines G191172 is the RHR system print.
SAT/UNSAT	* **Step 2: Determine isolation boundaries.**
	Standard: The following valves identified to be shut: RHR-V10-69C, 47C, 13C Handwheel, 15C Handwheel
SAT/UNSAT	* **Step 3: Determine vent path.**
	Standard: The following valves identified to be open: RHR-V10-49C, 162C
SAT/UNSAT	* **Step 4: Determine drain path.**
	Standard: Either or both of the following valve(s) open: RHR-V10-22C, 21C; **and** 12A open
SAT/UNSAT	**Step 5: Determine correct print for RHR pump motor breaker.**
	Standard: Operator reviews G191299 or CWD 1300.
SAT/UNSAT	* **Step 6: Determine RHR Pump "C" Breaker.**
	Standard: 4 KV Bus 3 Compartment 5
SAT/UNSAT	**Step 7: Determine correct print for RHR MOV 15/13.**
	Standard: Operator reviews G 191301 Sheet 2 of 2 or CWD 1263, 1267.
SAT/UNSAT	**Step 8: Determine RHR 13C/15C MOV power supplies.**
	Standard: MMC 9B,Cubicle 6G and 7J

* Critical Step

TIME FINISH: _____

Terminating Cue: Mechanical and electrical boundaries identified.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.1.24 Ability to obtain and interpret station electrical and mechanical drawings**

(CFR: 45.12 / 45.13)

IMPORTANCE **RO 2.8** **SRO 3.1**

Tear-Out Sheet

Initial Conditions:

The plant is operating at full power. No equipment is out of service.

Initiating Cues:

A crack/leak has been reported by the RBAO to the Shift Manager on RHR-V10-49C. The leak is on the pump side of the valve (C RHR pump vent). The Shift Manager directs you to identify mechanical and electrical components to isolate, vent, and drain the pump using controlled station mechanical and electrical drawings

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Preparation of Control Room Shift Turnover Checklist
Failure Mode: HPCI Flow control setpoint tape not properly set
Reference: AP-0152
Task Number: 2990030301

Task Performance: AO/RO/SRO ___ RO/SRO Only ___ SE Only ___

Sequence Critical: Yes ___ No _X_

Time Critical: Yes ___ No _X_

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: _____

Method of Testing: Simulation ___ Performance _X_ Discuss

Setting: Classroom ___ Simulator _X_ Plant

Performance Expected Completion Time: 20 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/16/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure.

After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** all actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions: Full power operation, no equipment out of service

Initiating Cues: The CRS directs you to complete the control room shift turnover checklist VYAPF 0152.01

Task Standards: Checklist completed: HPCI flow control setpoint identified as unsat and corrected

Required Materials: VYN Simulator

Two copies of form 0152.01 one for the student and one for the examiner

Simulator Setup: Any full power IC
HPCI flow control setpoint tape dialed down to 3000 GPM

TIME START: _____

SAT/UNSAT **Step 1: Obtain AP 0152 and review procedure**

Standard: AP 0152 obtained and reviewed

SAT/UNSAT ***Step 2: Obtain VYAPF 0152.01**

Standard: Operator copies form from forms drawer or copies form from procedure

---

Interim Cue: Provide the operator with the attached VYAPF 0152.01 when satisfied that he could find it

---

SAT/UNSAT **Step 3: Check mark box as each system/component is verified lined up correctly**

Standard: Check mark in each box for each system or component on the check sheet except HPCI

SAT/UNSAT ***Step 4: HPCI flow control identified as not properly set**

Standard: HPCI flow control mark **NO** and explained in the remarks

SAT/UNSAT ***Step 5: HPCI setpoint tape mispositioning reported to the CRS and permission to correctly position requested**

Standard: Report and request made to CRS

Interim Cue: If asked, as the CRS direct the HPCI setpoint tape reset to the proper position

---

SAT/UNSAT ***Step 6: HPCI setpoint tape reset to correct position**

Standard: HPCI setpoint tape set to 4250 GPM

SAT/UNSAT **Step 7: Check mark placed over HPCI "NO" and remark entry**

Standard: Check mark written over the NO mark and a new remark made documenting the resetting of the HPCI setpoint tape

---

Interim Cue: If asked the CRS will write the event report

SAT/UNSAT **Step 8: Complete the check list**

Standard: Check list completed and returned to the CRS

Terminating Cue: Check list completed, and turned into the CRS
HPCI setpoint tape set to 4250 GPM

TIME FINISH: _____

Evaluator Comments: _____

_____

_____

_____

_____

_____

System Generic K/A's: 2.1.3 **Knowledge of shift turnover practices.**

(CFR: 41.10 / 45.13)

IMPORTANCE RO 3.0

2.1.31 **Ability to locate control room switches / controls and indications and to determine that they are correctly reflecting the desired plant lineup.**

(CFR: 45.12)

IMPORTANCE RO 4.2

Tear-Out Sheet

Initial Conditions: Full power operation, no equipment out of service

Initiating Cues: The CRS directs you to complete the control room shift turnover checklist VYAPF 0152.01

Facility: Vermont Yankee Date of Examination: 10/3/03
Examination Level (circle one): RO / **SRO** Operating Test Number: 1

Administrative Topic ~~/Subject Description~~ (see Note)	Describe activity to be performed ~~method of evaluation:~~ ~~1. ONE Administrative JPM, OR~~ ~~2. TWO Administrative Questions~~
~~A.1~~ Conduct of Operations	Take actions for inadequate shift staffing (new) Generic 2.1.5 **Ability to locate and use procedures and directives related to shift staffing and activities.** (CFR: 41.10 / 43.5 / 45.12) IMPORTANCE SRO 3.4
Conduct of Operations	Isolate leaking RHR piping leak and determine Technical Specification impact (new) Generic 2.1.24 **Ability to obtain and interpret station electrical and mechanical drawings.** (CFR: 45.12 / 45.13) IMPORTANCE SRO 3.1
~~A.2~~ Equipment Control	Determine if equipment can be removed from service for minor unscheduled maintenance (new) Generic 2.2.17 **Knowledge of the process for managing maintenance activities during power operations.** (CFR: 43.5 / 45.13) IMPORTANCE SRO 3.5
~~A.3~~ Radiation Control	Review and approve Emergency plan allowed radiation exposure (new) Generic 2.3.4 **Knowledge of radiation exposure limits and contamination control / including permissible levels in excess of those authorized.** (CFR: 43.4 / 45.10) IMPORTANCE SRO 3.1
~~A.4~~ Emergency Plan	Determine protective action recommendation (bank) Generic 2.4.29 **Knowledge of the emergency plan.** (CFR: 43.5 / 45.11) IMPORTANCE SRO 4.0

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Take Actions for Inadequate Shift Staffing
Failure Mode: N/A
Reference: AP 0894 / TRM Section 6.1
Task Number: 34100403

Task Performance: AO/RO/SRO ___ RO/**SRO** Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X__

Time Critical: Yes ___ No _X___

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: N/A

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/15/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure.

After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

0200 today full power operations. You are the Shift Manager

Initiating Cues:

The Chemistry Technician falls down the admin building stairs, compound fractures his right leg, and is transported to the hospital. Determine if any actions are required related to Shift Staffing.

Task Standards:

- Correct individuals identified
- Event report initiated

Required Materials:

AO 0894
VYAPOF 0009.01 pages 1 & 2

Simulator Setup:

Any IC

Evaluation **Performance Steps**

TIME START: _____

SAT/UNSAT **Step 1:** **Obtain procedure AP 0894 and review discussion section and administrative limits.**

Standard: Operator obtains AP 0894 and reviews administrative limits.

SAT/UNSAT **Step 2:** **Operator refers to Table 1 and determines the Chemistry Technician is a required position.**

Standard: Table 1 reviewed – Chemistry Technician determined to be a required position.

SAT/UNSAT * **Step 3:** **Notifies the Chemistry Department head.**

Standard: Sam Wender: Phone 802-365-4177, phone number identified
Pager 742-9073, may direct Security Shift Supervisor to page

Interim Cue: The actual home phone number or pager number must be found. The call should be simulated. OP 3531, Emergency Call-in, in the control room has the phone list. The list is not in any other E-Plan books for privacy reasons. When the operator opens OP 3531, give him the phone list.

SAT/UNSAT * **Step 4:** **Notifies the Operations Manager.**

Standard: Chris Wamser: Phone 603-363-4183, phone number identified
Pager 742-9175; , may direct Security Shift Supervisor to page
Cell Phone 802-380-0509

Interim Cue: The actual home phone number or pager number must be found. The call should be simulated.

SAT/UNSAT **Step 5: Initiates an Event Report.**

Standard: Operator initiates an Event Report.

Interim Cue: Do not allow the operator to do this on the computer (it would be real). Provide the operator with Hard Copy Forms.

---

* Critical Step

TIME FINISH: _____

Terminating Cue: VYAPOF 0009.01 filled out and simulated turned in.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.1.5 Ability to locate and use procedures and directives related to shift staffing and activities**

(CFR: 41.10 / 43.5 / 45.12)

IMPORTANCE **RO 2.3** **SRO 3.4**

Tear-Out Sheet

Initial Conditions:

0200 today full power operations. You are the Shift manager

Initiating Cues:

The Chemistry Technician falls down the admin building stairs, compound fractures his right leg, and is transported to the hospital. Determine if any actions are required related to Shift Staffing.

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Isolate Leaking RHR Pipe Weld and Determine Technical Specification Required Actions
Failure Mode: N/A
Reference: P&ID G191172 / G191299 / G191301
Task Number: 2990100304 (AO Task)

Task Performance: AO/RO/SRO ___ RO/**SRO** Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X___

Time Critical: Yes ___ No _X___

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: _____N/A_____

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 24 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/15/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

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After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.
This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

The plant is operating at full power. No equipment is out of service.

Initiating Cues:

A crack/leak has been reported by the RBAO to the Shift Manager on RHR-V10-49C. The leak is on the pump side of the valve (C RHR pump vent). The Shift Manager directs you to identify mechanical and electrical components to isolate, vent, and drain the pump, using station controlled mechanical and electrical prints.
Using Technical Specifications determine the LCO before and after leak isolation.

Task Standards:

P-10-1C Breaker identified
P-10-1C Pump Isolation Vent, Drain Vales identified
MOV Breakers identified
Correct Technical Specification LCO determined

Required Materials:

Controlled Prints
Technical Specifications

Simulator Setup:

Any IC, need controlled prints, can be done in any setting with controlled prints available

Evaluation	Performance Step	
	TIME START: _____	
SAT/UNSAT	**Step 1:**	**Determine correct print for RHR system.**
	Standard:	Operator determines G191172 is the RHR system print.
SAT/UNSAT	* **Step 2:**	**Determine isolation boundaries.**
	Standard:	The following valves identified to be shut: RHR-V10-69C, 47C, 13C Handwheel, 15C Handwheel
SAT/UNSAT	* **Step 3:**	**Determine vent path.**
	Standard:	The following valves identified to be open: RHR-V10-49C, 162C
SAT/UNSAT	* **Step 4:**	**Determine drain path.**
	Standard:	Either or both of the following valve(s) open: RHR-V10-22C, 21C; **and** 12A open
SAT/UNSAT	**Step 5:**	**Determine correct print for RHR pump motor breaker.**
	Standard:	Operator reviews G191299 or CWD 1300.
SAT/UNSAT	* **Step 6:**	**Determine RHR Pump "C" Breaker.**
	Standard:	4 KV Bus 3 Compartment 5
SAT/UNSAT	**Step 7:**	**Determine correct print for RHR MOV 15/13.**
	Standard:	Operator reviews G 191301 Sheet 2 of 2 or CWD 1263, 1267
SAT/UNSAT	**Step 8:**	**Determine RHR 13C/15C MOV power supplies.**
	Standard:	MMC 9B,Cubicle 6G and 7J
SAT/UNSAT	*Step 9:	**Determine Technical Specification LCO prior to leak isolation.**
	Standard:	3.7.A.8 due to failure to comply with 3.7.A.3 24 Cold Shutdown.

SAT/UNSAT * **Step 10: Determine Technical Specification LCO after leak isolation..**

Standard: RHR LPCI 3.5.A.3 – 7 days

- Critical Step

TIME FINISH: _____

Terminating Cue: Mechanical and electrical boundaries identified and Technical Specification LCOs determined. Order of steps not critical. Control authority will determine order of steps.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.1.24 Ability to obtain and interpret station electrical and mechanical drawings**

(CFR: 45.12 / 45.13)

IMPORTANCE **RO 2.8** **SRO 3.1**

2.1.12 Ability to apply technical specifications for a system.

(CFR: 43.2 / 43.5 / 45.3)

IMPORTANCE **RO 2.9** **SRO 4.0**

Tear-Out Sheet

Initial Conditions:

The plant is operating at full power. No equipment is out of service.

Initiating Cues:

A crack/leak has been reported by the RBAO to the Shift Manager on RHR-V10-49C. The leak is on the pump side of the valve (C RHR pump vent). The Shift Manager directs you to identify mechanical and electrical components to isolate, vent, and drain the pump, using station controlled mechanical and electrical prints.
Using Technical Specifications determine the LCO before and after leak isolation.

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Determine if Equipment Can Be Removed From Service for Minor Unscheduled Maintenance
Failure Mode: N/A
Reference: AP 0125
Task Number: 34200103, 34200303

Task Performance: AO/RO/SRO ___ RO/**SRO** Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X_

Time Critical: Yes ___ No _X_

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: N/A

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/15/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure.

After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

The plant is operating at full power. ORAM-Sentinel is out of service. A HPCI LCO is in progress.

Initiating Cues:

The Maintenance Manager has directed you to determine if diesel fire pump can be removed from service for PMS (battery replacement). Maintenance has personnel available to perform the work which is currently scheduled for next week. Per AP 0125 should the diesel fire pump be removed from service?

Task Standards:

Per AP 0125 Appendix B note, combinations marked on the SSC redundancy matrix by a black box should be avoided → NO

Required Materials:

AP 0125, and a full size redundancy matrix

Simulator Setup:

N/A

Evaluation	Performance Step	
	TIME START: _____	
SAT/UNSAT	**Step 1:**	**Obtain AP 0125 Section 4.2 initiation of work activities.**
	Standard:	AP 0125 Section 4.2 obtained, Operator may review the discussion section.
SAT/UNSAT	**Step 2:**	**Perform Appendix B per step 4.2.1.1 of AP 0125.**
	Standard:	Operator refers to Appendix B of AP 0125. (Diesel fire pump is non-tech spec)
SAT/UNSAT	**Step 3:**	**Operator determines no de-energization plan is required per App B step A.2.**
	Standard:	No de-energization plan is required.
SAT/UNSAT	**Step 4:**	**Consider impact on plant safety with HPCI OOS / Appendix R / Plant Configuration / External conditions.**
	Standard:	HPCI OOS is noted.

Interim Cue: Appendix R Coordinator has determined necessary compensatory actions and will provide them to you. Weather is calm, no storms, no off sight electrical problems.

SAT/UNSAT	* **Step 5:**	**With ORAM Sentinel OOS Figure 1 should be used for guidance per App B note.**
	Standard:	Operator refers to Figure 1 AP 0125
SAT/UNSAT	* **Step 6:**	**Using Figure 1 operator connects HPCI OOS with Diesel Fire Pump OOS and determines black box.**
	Standard:	Intersection of HPCI / Diesel Fire Pump black box noted.

SAT/UNSAT * **Step 7: Operator informs Maintenance that Diesel Fire Pump maintenance can not be performed.**

Standard: Permission to perform maintenance not granted.

- Critical Step

TIME FINISH: _____

Terminating Cue: Diesel Fire Pump maintenance not allowed.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.2.17 Knowledge of the process for managing maintenance activities during power operations**

(CFR: 43.5 / 45.13)

IMPORTANCE **RO 2.3** **SRO 3.5**

Tear-Out Sheet

Initial Conditions:

The plant is operating at full power. ORAM-Sentinel is out of service. A HPCI LCO is in progress.

Initiating Cues:

The Maintenance Manager has directed you to determine if diesel fire pump can be removed from service for PMS (battery replacement). Maintenance has personnel available to perform the work which is currently scheduled for next week. Per AP 0125 should the diesel fire pump be removed from service?

Diesel Fire Pump Maintenance: Allowed Not Allowed

(circle one)

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: Review and Approve Emergency Plan Allowed Radiation Exposure
Failure Mode: Incorrect emergency exposure limit recommended
Reference: OP 3507
Task Number: 34403403

Task Performance: AO/RO/SRO ___ RO/**SRO** Only _X_ SE Only ___

Sequence Critical: Yes ___ No _X_

Time Critical: Yes ___ No _X_

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: N/A

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/18/03
Operations Training Instructor — Date

Reviewed by: S Jeffcoat for Ken Oliver per Tele Con 9/18/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure. After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.
This JPM will be performed in the **Simulator** and you are to **perform** the actions.
You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

A Site Area Emergency has been declared due to an ATWS. Reactor building ARMs have increased by a factor of 1000. ARM 2 RB-252 by the elevator is reading >1000 mr/hr, off scale high. ARM 4 RB-252 by TIP room is reading 9000 mr/hr (Scale to 10,000 mr/hr. Airborne radiation levels at this time are not above normal.

Initiating Cues:

You are the Plant Emergency Director (PED). Shutting CRD 56 is the only available method for driving control rods in. Time estimate for shutting CRD 56 is 10 minutes.
The TSC is not manned
The OSC requests your review and approval of the emergency radiation exposure.
The RBAO/AO peer/RP tech are standing by in the OSC awaiting your directions.

Task Standards:

- Verify the allowed dose for this task
- Verify the RBAO Emergency radiation exposure does not exceed the allowed limit
- Correct maximum allowed dose from 75 REM to 5 REM
- Review and correct VYOPF 3507.02
- Approve emergency exposure and send the team to perform the task.

Required Materials:

OP 3507
VYOPF 3507.02 pages 1 & 2 and VYOPF 3544.02 Completed by OSC (Shift RP technician) and provided to the PED. (Error in allowed dose for the task)

Simulator Setup: Any IC

Evaluation	Performance Step	
	TIME START: _____	
SAT/UNSAT	**Step 1:**	**PED locates OP 3507, Emergency Radiation Exposure Control, reviews Discussion Section, Precautions/Limitations.**
	Standard:	Correct procedure located and used, precaution/limitations reviewed.
SAT/UNSAT	***Step 2:**	**PED determines that 5 REM TEDE is authorized for Plant Emergency Personnel.**
	Standard:	Appendix A limits exposure to 5 REM (OP 3507 A 2 note specifies a limit of 4.5 REM TEDE)
SAT/UNSAT	***Step 3:**	**PED reviews the planned dose and confirms the calculation.**
	Standard:	PED determines the calculation is correct (10 min)(9000 mr/hr)(1hr/60 min) = 1500 mr
SAT/UNSAT	**Step 4:**	**PED verifies exposure to RBAO is less than Appendix A limits.**
	Standard:	Appendix A allows 5 rem. Planned exposure is less than allowed
SAT/UNSAT	**Step 5:**	**PED verifies operator satisfies considerations of Appendix A Note 1.**
	Standard:	PED checks RBAO against 7 criteria of the note.

Interim Cue: If asked the RBAO is male, 58 years old, volunteers for the task, has a lifetime exposure of 5 REM, is aware of the risks, is strong and in good physical condition, has shut CRD 56 before. Peer checker is also an experienced AO with similar physical characteristics.
RP tech has similar physical characteristics also

SAT/UNSAT * **Step 6:** **PED reviews and approves VYOPF 3507.02, and directs RBAO/Peer/RP tech to shut CRD 56.**

Standard: VYOPF 3507.02 reviewed, improper allowable dose identified and corrected, (75 REM should be 5 REM) RBAO/Peer/RP briefed and informed of correct allowable dose.
Team sent to shut CRD 56

* Critical Step

TIME FINISH: _____

Terminating Cue: RBAO sent into reactor building to shut CRD 56.

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.3.4 Knowledge of radiation exposure limits and contamination control/including permissible levels in excess of those authorized**

(CFR: 43.4 / 45.10)

IMPORTANCE **RO 2.5** **SRO 3.1**

EXAMINEE HANDOUT

Initial Conditions:

A Site Area Emergency has been declared due to an ATWS. Reactor building ARMs have increased by a factor of 1000. ARM 2 RB-252 by the elevator is reading >1000 mr/hr, off scale high. ARM 4 RB-252 by TIP room is reading 9000 mr/hr (Scale to 10,000 mr/hr. Airborne radiation levels at this time are not above normal.

Initiating Cues:

You are the Plant Emergency Director (PED).
Shutting CRD 56 is the only available method for driving control rods in.
Time estimate for shutting CRD 56 is 10 minutes.
The TSC is not manned
The OSC requests your review and approval of the emergency radiation exposure.
The RBAO/AO peer/RP tech are standing by in the OSC awaiting your directions.

EMERGENCY RADIATION EXPOSURE BRIEFING/DEBRIEFING

JOB NO. / (From VYOPF 3544.02)

EMERGENCY DOSE COMMITMENT AUTHORIZED
TEDE DOSE COMMITMENT AUTHORIZED: _____
APPROVED BY: _____ APPROVAL TIME: _____
Note: SS/PED or TSC Coordinator approval required

RADIOLOGICAL BRIEFING
Known or Anticipated Radiation/Contamination/Airborne Levels: TIP Room ARM is reading 9,000 mR/hr Airborne radiation Levels are normal
Maximum Stay Time/Allowable Dose: 10 mins / 75 REM
Required Dosimetry: Self-Reading ☒ Multibadge ☐
Portable Dose Rate Meter: Ion Chamber ☒ Teletector ☒ Neutron Meter ☐ Other (Specify)
Respiratory Protection: SCBA ☐ Respirator ☐ NONE
Protective Clothing: Full ☒ Other (Specify)
KI Needed? YES ☐ NO ☒
Special Instructions: (Specify) RP Tech to accompany RBAO and peer checker

BRIEFER INITIALS: JB DATE/TIME: Today / 5 mins ago

LIST OF INDIVIDUALS ATTENDING BRIEFING		
NAME (PRINT)	SSN	SIGNATURE
John Doe	123 45 6789	John Doe (RBAO)
Tom Brown	234 56 7890	Tom Brown (RP)
George Bush	345 67 8900	George Bush (AO Peer checker)

EMERGENCY RADIATION EXPOSURE BRIEFING/DEBRIEFING (Continued)

RADIOLOGICAL DEBRIEFING INFORMATION
Time of Return:
Job Completed: YES ☐ NO ☐ Comments/Status (If applicable):
Actual Radiation/Contamination/Airborne Levels Found:
Observed Personal Hazards:
Problems Encountered/General Comments:
Post-Entry Exposure Follow-up: TLD and Dosimetry ☐ Body Count ☐ Other Bio-assay (Specify)

DEBRIEFER INITIALS:_____DATE/TIME:_____

OSC COORDINATOR INITIALS:_____DATE/TIME:_____

TSC COORDINATOR INFORMED BY (INITIALS):_____DATE/TIME:_____
OR SS/PED

OSC TEAM WORK STATUS FORM

JOB NO. 1 JOB LOCATION RB 252 NW CRD Station

BRIEF JOB DESCRIPTION:
Shut CRD 56
Estimate Job completion time. 10 mins
Radiation Level ≈ 9,000 mR/hr
Esitmated Exposure (9,000 mr/hr)(10 mins)(1hr/60 mins) = 1500 mR

NAME OF OSC TEAM MEMBERS
Work Coordinator (if applicable) SS/PED - TSC not yet manned
Team Members:
RBAO John Doe
RP Tech Tom Brown
TBAO (peer checker) George Bush

EMERGENCY DOSE COMMITMENT REQUIRED? (VYOPF 3507.02 ATTACHED)
☒ YES ☐ NO RAD PROTECTION INITIALS: JD

TIME TEAM DISPATCHED:_____ TIME TEAM RETURNED:_____

DISPOSITION OF JOB:

Manpower Status Board updated at completion of job: ☐

OSC COORDINATOR'S FINAL INITIALS:_____

Top Copy: Assigned Team
Second Copy: Manpower Status Board
Third Copy: OSC Dispatcher

VERMONT YANKEE
JOB PERFORMANCE MEASURE
WORKSHEET

Task Identification:

Title: PAR Based on Plant Conditions (Evacuate)
Failure Mode: N/A
Reference: OP 3511, Off-Site Protective Action Recommendations, Rev 11
Task Number: 3441703, 34470603

Task Performance: AO/RO/SRO ___ RO/**SRO** Only _X_ SE Only ___

Sequence Critical: Yes ___ No __X__

Time Critical: Yes _X_ No _____

Individual Performing Task: _____

Examiner: _____

Date of Evaluation: _____

Activity Code: _____

Method of Testing: Simulation ___ Performance _X_ Discuss ____

Setting: Classroom ___ Simulator _X_ Plant ____

Performance Expected Completion Time: 15 minutes

Evaluation Results:

Performance: PASS ___ FAIL ___ Time Required: _____

Prepared by: _____ 9/12/03
Operations Training Instructor — Date

Reviewed by: _____ 9/16/03
SRO Licensed/Certified Reviewer — Date

Approved by: _____ 9/18/03
Operations Training Superintendent — Date

Directions:

Discuss the information given on this page with the operator being evaluated. Allow time for him to ask questions before beginning performance of the task. As each performance step is performed, evaluate the performance of that step by circling either "Sat" or "Unsat". Comments are required for any "Unsat" classification. If a step is preceded by an asterisk (*), it is a critical step. If a critical step is skipped or performed unsatisfactorily, then the individual has failed the Job Performance Measure. After providing the initiating cue, ask the individual "Do you understand the task?"

Read to the person being evaluated:

Before starting, I will explain the initial conditions, provide the initiating cues and answer any questions you have.

This JPM will be performed in the **Simulator** and you are to **perform** the actions.

You are requested to **"talk-through"** the procedure, stating the parameters you are verifying or checking and the steps you are performing.

Inform me upon completion of this task.

Initial Conditions:

A failure to SCRAM and a loss of cooling accident has occurred. All ECCS systems responded as expected. The following plant data is available:

- Rx water level is -30" and stable
- Containment RAD level is 10000R/hr and increasing
- Torus pressure is 4 psig and steady
- Containment isolation valves AC-6 and AC-6B have failed to close
- Stack high range monitor RM17-155 is alarming
- The Shift Manager has declared a General Emergency and the EOF has not yet been manned. A stack release is in progress.
- Upper wind direction is from 200 degrees

Initiating Cues:

Determine the Protective Action Recommendation based on plant conditions per OP 3511, and provide to the Shift Manager for approval.

Task Standards:

PAR and VYOPF 3511.01 complete

Required Materials:

OP 3511, VYOPF 3511.01

Simulator Setup: N/A

Evaluation	Performance Step	
	TIME START: _____	
SAT/UNSAT	**Step 1:**	**Obtain Procedure OP 3511, Section 1 and review precautions.**
	Standard:	Operator obtains and reviews procedure.
SAT/UNSAT	**Step 2:**	**Utilize Figure 1 (OP 3511) to determine the appropriate protective action recommendation based on plant conditions, and record on VYOPF 3511.01.**
	Standard:	Operator obtains Figure 1 of OP 3511 and VYOPF 3511.01 from OP 3511.
SAT/UNSAT	* **Step 3:**	**Determine wind direction from meteorological data.**
	Standard:	Operator records current upper wind direction on Figure 1. as provided in the initiating cues

Interim Cue: If this JPM is administered in the simulator and the operator attempts to obtain real time data IAW 3513 App I, inform him wind direction is from 200 degrees as stated in the initial conditions. (Real time data is variable in the simulator)

SAT/UNSAT	* **Step 4:**	**Determine from initial conditions that substantial core damage is in progress.**
	Standard:	Operator answers yes to "substantial core damage" decision block on Figure 1 of OP 3511 due to containment rads > 5000 R/hr
SAT/UNSAT	* **Step 5:**	**Determine from initial conditions that containment failure has occurred and a release is underway.**
	Standard:	Operator answers yes to "containment failure projected or release underway" decision block on Figure 1 of OP 3511 due to AC-6 and 6a failure to close.
SAT/UNSAT	* **Step 6:**	**Determine that a puff release is not underway.**
	Standard:	Operator answers no to "is a puff release underway?' decision block on Figure 1 of OP 3511. This conclusion is based on AC 6 and 6B failed open and note 4 of figure 1. This is not a puff release.

SAT/UNSAT * **Step 7:** **Determine PAR of evacuation for Vernon, Hinsdale and Winchester and completes VYOPF 3511.01**

Standard: Operator determines correct **PAR is evacuation** for Vernon,Hindsdale, Winchester and completes VYOPF 3511.01
(From Table III of OP 3511 based on wind direction from 200 degrees.)

SAT/UNSAT **Step 8:** **Review PAR with SM (Senior Manger in charge) for approval.**

Standard: Operator requests approval of PAR from Shift Manager.

Interim Cue: The Shift Manger states that he will complete the remainder of the procedure.

- Critical Step
-

TIME FINISH: _____

Terminating Cue:

Evaluator Comments: _____

_____

_____

_____

_____

System: **K/A's:**

System Generic K/A's: **2.4.29 Knowledge of the emergency plan**

(CFR: 43.5 / 45.11)

IMPORTANCE **RO 2.6** **SRO 4.0**

EXAMINEE HANDOUT

Initial Conditions:

A failure to SCRAM and a loss of cooling accident has occurred. All ECCS systems responded as expected. The following plant data is available:

- Rx water level is -30" and stable
- Containment RAD level is 10000R/hr and increasing
- Torus pressure is 4 psig and steady
- Containment isolation valves AC-6 and AC-6B have failed to close
- Stack high range monitor RM17-155 is alarming
- The Shift Manager has declared a General Emergency and the EOF has not yet been manned. A stack release is in progress.
- Upper wind direction is from 200 degrees

Initiating Cues:

Determine the Protective Action Recommendation based on plant conditions per OP 3511, and provide to the Shift Manager for approval.