

ADMINISTRATIVE TOPICS

Facility: <u>HOPE CREEK</u>	Date of Examination: <u>3/11/02</u>
Examination Level: <input type="checkbox"/> RO <input checked="" type="checkbox"/> SRO	Operating Test Number: _____
TOPIC: <u>A.1-1</u>	QUESTION: <u>1</u>
Subject Description: Plant Parameter Verification	
K/A: 2.1.25 Ability to obtain and interpret station reference materials such as graphs/monographs/and tables which contain data. (3.1)	
DESCRIPTION: Question-Given plant conditions, determine the required Circulation Water System requirements for extreme cold weather.	
QUESTION:	
Given the following:	
<ul style="list-style-type: none">• Three (3) Circulating Water Pumps are in operation• HV-2174, A&B CLG TWR DE-ICING VALVES are open• Average Basin water temperature Computer Point A2769 is 55F• Outside ambient air temperature is 25F• Cooling Tower Blowdown return temperature (daily average) is 75F• Thermal release rate to the river is 576 MBtu's/hr• A small amount of ice has formed on the Fill support Columns and Beams of the Cooling Tower• There is a very small ice formation on the Fill Sheets between the supports• Minimal ice has formed on the Support Columns	
Determine if any actions are required for continued operation of the Circulating Water System.	
ANSWER: Reference HC.OP-SO.DA-0001	
Per 5.3.4.A.1, Four Circulating Water Pumps should be in operation.	
The current operating region is in CENTRAL SHUT-OFF VALVES CLOSED (Att.1)	
Operation of HV-2174 A&B is not required because ice formation is within the recommendations of Note 5.3.7, but continuous monitoring is required.	

ADMINISTRATIVE TOPICS

Given the following:

- **Three (3) Circulating Water Pumps are in operation**
- **HV-2174, A&B CLG TWR DE-ICING VALVES are open**
- **Average Basin water temperature Computer Point A2769 is 55F**
- **Outside ambient air temperature is 25F**
- **Cooling Tower Blowdown return temperature (daily average) is 75F**
- **Thermal release rate to the river is 576 MBtu's/hr**
- **A small amount of ice has formed on the Fill support Columns and Beams of the Cooling Tower**
- **There is a very small ice formation on the Fill Sheets between the supports**
- **Minimal ice has formed on the Support Columns**

Determine if any actions are required for continued operation of the Circulating Water System.

ADMINISTRATIVE TOPICS

Facility: HOPE CREEK Date of Examination: 3/11/02

Examination Level: RO SRO Operating Test Number: _____

TOPIC: A.1-1 QUESTION: 2

Subject Description: Plant Parameter Verification

K/A: 2.1.25 Ability to obtain and interpret station reference materials such as graphs/mongraphs/and tables which contain data. (4.4)

DESCRIPTION: Question-Calculate time to Secondary Containment is required following a loss of Shutdown Cooling.

QUESTION:

Given the following:

- The Reactor scrammed 110 hours ago from extended operation.
- B RHR is in shutdown cooling
- RCS temperature is 140F
- Secondary Containment has been relaxed.

How long until Secondary Containment integrity is required if all normal and alternate means of decay heat removal were lost?

ANSWER: Reference HC.OP-AB.ZZ-0142

Secondary containment is required when RCS temperature is >200F.

Per Figure 1, 1 hour and 15 minutes (5 minutes)

ADMINISTRATIVE TOPICS

Given the following:

- The Reactor scrammed 110 hours ago from extended operation.
- B RHR is in shutdown cooling
- RCS temperature is 140F
- Secondary Containment has been relaxed.

How long until Secondary Containment integrity is required if all normal and alternate means of decay heat removal were lost?

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Administrative

TASK: Perform A Shift Turnover As On-Coming CRS
Complete key verification required during CRS shift turnover.

TASK NUMBER: 2990130302

INITIAL CONDITIONS:

1. You are the on-coming day shift Control Room Supervisor.
2. SH.OP-AP.ZZ-0107(Q), ATTACHMENT 2a, Hope Creek - Control Room Supervisor/Shift Technial Advisor Relief Checklist, is in progress.

INITIATING CUE:

Turnover the CRS Key Ring and ENSURE you have received all the required CRS keys.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative

TASK: Perform A Shift Turnover As On-Coming CRS/Complete key verification required during CRS shift turnover.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains and locates procedure SH.OP-AP.ZZ-0107(Q).	Operator obtains the correct procedure.		
	5.3.2	<p>Control Board Walk-Downs</p> <p>All oncoming licensed operators (except the OS as described below) should WALK-DOWN the control boards under their cognizance with the off-going operator verifying checklist items. Discussions should include, but are not limited to:</p> <ul style="list-style-type: none"> • Status of safety-related systems [CD-787D] • Running equipment and train alignments • Inoperable equipment and Limiting Conditions for Operations, including surveillance requirements • Reasons for annunciator alarms • Tagged equipment including any surveillance or equipment work in progress at time of shift relief • Unusual occurrences during the last 24 hours 	<p>Operator obtains a copy of Attachment 3.</p> <p>Examiner Cue: Provide the operator with Attachment 3.</p>		
		Operator obtains and locates procedure SH.OP-DD.ZZ-0065(Z).	Operator obtains the correct procedure.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative

TASK: Perform A Shift Turnover As On-Coming CRS/Complete key verification required during CRS shift turnover.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator determines beginning step of the procedure.	Operator determines correct beginning step of procedure to be 5.3.3.		
*	5.3.3	<p>START TIME: _____</p> <p>Key rings are turned over from shift to shift IAW SH.OP-AP.ZZ-0107(Q), Shift Turnover Responsibilities.</p> <p>A. The oncoming operator must ensure the relieving operator receives the duty keys.</p> <p>B. Lost rings or keys must be reported to the WCCS immediately and to the Key Control Coordinator on the next working day.</p> <p>STOP TIME: _____</p>	<p>Examiner Note: Initialling and dating Attachment 2 is NOT critical.</p> <p>Operator locates the CRS key ring and verifies that all keys listed in Attachment 2, Hope Creek Key Inventory – Key Rings, of SH.OP-DD.ZZ-0065(Z) are present.</p> <p>Once satisfied that all keys are accounted for, the operator initials Attachment 2a, Hope Creek - Control Room Supervisor/Shift Technial Advisor Relief Checklist</p> <p>Examiner Note: Initialling and dating Attachment 2a is NOT critical.</p>		

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. You are the on-coming day shift Control Room Supervisor.
2. SH.OP-AP.ZZ-0107(Q), ATTACHMENT 2a, Hope Creek - Control Room Supervisor/Shift Technical Advisor Relief Checklist, is in progress.

INITIATING CUE:

Turnover the CRS Key Ring and ENSURE you have received all the required CRS keys.

EXAMINER'S COPY
TRAINING ONLY

SH.OP-AP.ZZ-0107(Q)

ATTACHMENT 2a
**HOPE CREEK - CONTROL ROOM SUPERVISOR/SHIFT TECHNICAL ADVISOR
 RELIEF CHECKLIST
 (Page 1 of 1)**

Date: DATE

Oncoming Check Off (Review the Following Prior to Relief):

	<u>DAYS</u>	<u>NIGHTS</u>	
1. CRS Narrative Log			CD-421Y
2. Night Orders - Read and Initialed			
3. Main Control Boards (10C650, 10C651)			CD-421Y
4. Action Statement Log (AP-108)			CD-421Y
5. Review P1 (<u>IF</u> not STA, N/A)			
6. INOP Instrument/Alarm Log (DL-10)			CD-975E
7. Turnover CRS Keys	<i>Initials</i>		
8. Review STA - 6 hour Checklist (<u>IF</u> not STA, N/A)			

After Relief Check Off (Review/Perform As Soon As Practical):

	<u>DAYS</u>	<u>NIGHTS</u>	
1. Shift Chemistry Summary			CD-421Y
2. RO/PO Narrative and Console Logs, and Equipment Status Checklist, Temporary Readings Logs (DL-27)			CD-421Y
3. Verification by the STA that GETARS is in the "Sentinel Mode". (If not the STA, N/A)			
4. Review Shift Manning (Attachment 5) and review 12 hour shift book for manning requirements.			
5. Review Installed T - Mod Status			CD-740A
6. Review CROD Book			

 Oncoming CRS/STA (Days)

 Oncoming CRS/STA (Nights)

NOTE: Review information back to last time on shift or 72 hrs.
 If > 5 days, review previous 5 days after relief.
 Review unexpired Night Orders since last time on shift.

EXAMINER'S COPY
TRAINING ONLY

SH.OP-DD.ZZ-0065(Z)

ATTACHMENT 2
 (Page 2 of 2)

HOPE CREEK KEY INVENTORY – KEY RINGS

POSITION	DESCRIPTION	KEY ID	INITIALS	DATE
CRS	A Master	AM	<i>Initials</i>	<i>Date</i>
	D Master	DM	<i>Initials</i>	<i>Date</i>
	Maint Master	FAM	<i>Initials</i>	<i>Date</i>
	G Master	GM	<i>Initials</i>	<i>Date</i>
	KIRK EMG TAKEOVER	RE1095	<i>Initials</i>	<i>Date</i>
	R Master	RM	<i>Initials</i>	<i>Date</i>
	Duress	HC DURESS	<i>Initials</i>	<i>Date</i>
	Duress Reset	DURESS RESET	<i>Initials</i>	<i>Date</i>
		14M59	<i>Initials</i>	<i>Date</i>
		G2	<i>Initials</i>	<i>Date</i>
	Elevator	EVEL	<i>Initials</i>	<i>Date</i>
	Unit 2 Access	L22	<i>Initials</i>	<i>Date</i>
	Elevator	ELEV	<i>Initials</i>	<i>Date</i>
		92238	<i>Initials</i>	<i>Date</i>
		CO26	<i>Initials</i>	<i>Date</i>
		1092H	<i>Initials</i>	<i>Date</i>
		R06	<i>Initials</i>	<i>Date</i>
		SM733	<i>Initials</i>	<i>Date</i>
	Master Pad Lock	2179	<i>Initials</i>	<i>Date</i>
		HV F026B	HVF026B	<i>Initials</i>
OS	A Master	AM		
	Blue Core Master	BCM		
	C Master	CM		
	D Master	DM		
	Maint. Master	FAM		
	Maint. Master	FM		
	G Master	GM		
	Rad Pro Door Master	HRGM		
	I&C Master	IM		
	Unit 2 Access	L22		
	MR Master	MRM		
	Security	*		
	Supply cabinet	L256		
		CAT105		
		CORBIN		
		1092H		
		429		
	Duress Reset	DURESS RESET		
		RP		
	Elevator	EVEL		
		A96		
		L5		
		14M59		
	Master Pad Lock	2179		
		A798		
	Truck key	FORD-H2		
	Breaking Glass Key Box	Y11		
CX500 Transformer Cubicle Doors	2123			

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Administrative

TASK: Review All Operations Logs In Use During A Shift
Perform Drywell Air Temperature Operability Check

TASK NUMBER: 2992320302

INITIAL CONDITIONS:

1. SPDS is out of service.

INITIATING CUE:

Complete the Attachment 1a, Item 31, of HC.OP-DL.ZZ-0026(Q), CRS/OS Verification of Drywell Air Temperature. (Provided)

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: Administrative

TASK: Review All Operations Logs In Use During A Shift/Perform Drywell Air Temperature Operability Check

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		START TIME: _____	Operator manipulates CRIDS to view the required inputs. Examiner Note: See Attached.		
*			Operator determines that there is at least one operable input for each zone, circles SAT, and initials in the CRS/OS area. Examiner Note: See Attached.		
		STOP TIME: _____			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

- 1. SPDS is out of service.**

INITIATING CUE:

Complete the Attachment 1a, Item 31, of HC.OP-DL.ZZ-0026(Q), CRS/OS Verification of Drywell Air Temperature. (Provided)

JOB PERFORMANCE MEASURE
SIMULATOR INSTRUCTIONS

Reset to IC-1.

Insert Malfunction CC-03, SPDS Failure.

Remove the following CRIDS points from scan using the instructor station CRIDS terminal.

A2265

A2273

A2275

A2280

A2281

A2286

RETURN COMPUTER POINTS TO NORMAL FOLLOWING JPM COMPLETION.

**ATTACHMENT 1a
Surveillance Log - Control Room**

HCGS

Operational Condition _____ Date _____

ITEM	SURVEILLANCE	OPER COND	ACCEPTABLE LIMITS			INSTRUMENT (PANEL)	DAY	EVE	MID	COMMENTS																																					
			MIN	NORM	MAX																																										
1.	DRYWELL AIR TEMPERATURE	1,2,3	---	90-110	135	B5070 (SPDS OR CRIDS) OR ATTACHMENT 3q LINE F	N/A	N/A		(NOTE 1)																																					
<p>a. HAVE CRS/OS VERIFY AT LEAST ONE OPERABLE INPUT FOR EACH ZONE.</p> <p align="right">CIRCLE ONE:</p> <table border="1" style="display: inline-table; margin-right: 20px;"> <thead> <tr> <th>Zone</th> <th>e</th> <th>d</th> <th>c</th> <th>b</th> <th>a</th> </tr> </thead> <tbody> <tr> <td rowspan="6">Inputs</td> <td>A2264</td> <td>A2266</td> <td>A2276</td> <td>A2282</td> <td>A2280</td> </tr> <tr> <td>A2265</td> <td>A2267</td> <td>A2277</td> <td>A2283</td> <td>A2281</td> </tr> <tr> <td>A2268</td> <td>A2272</td> <td>A2278</td> <td>A2284</td> <td>A2286</td> </tr> <tr> <td>A2269</td> <td>A2273</td> <td>A2279</td> <td>A2285</td> <td>A2287</td> </tr> <tr> <td>A2270</td> <td>A2274</td> <td></td> <td></td> <td></td> </tr> <tr> <td>A2271</td> <td>A2275</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p align="right"> <input checked="" type="radio"/> SAT UNSAT <u>INITIALS</u> _____ CRS/OS INITIALS </p>											Zone	e	d	c	b	a	Inputs	A2264	A2266	A2276	A2282	A2280	A2265	A2267	A2277	A2283	A2281	A2268	A2272	A2278	A2284	A2286	A2269	A2273	A2279	A2285	A2287	A2270	A2274				A2271	A2275			
Zone	e	d	c	b	a																																										
Inputs	A2264	A2266	A2276	A2282	A2280																																										
	A2265	A2267	A2277	A2283	A2281																																										
	A2268	A2272	A2278	A2284	A2286																																										
	A2269	A2273	A2279	A2285	A2287																																										
	A2270	A2274																																													
	A2271	A2275																																													
2.	CHANNEL CHECK: DRYWELL GASEOUS	1,2,3	---	---	5.00E-03	ISK-RI4991 (10C604)																																									
			---	NO	---	INST TRIPPED																																									
3.	CHANNEL CHECK: REACTOR BLDG EXHAUST RADIATION MONITOR	1,2,3,*	---	---	1E-3	ISP-RI4857A (10C604)				(NOTE 2)																																					
			---	---	1E-3	ISP-RI4857B (10C604)																																									
			---	---	1E-3	ISP-RI4857C (10C604)																																									
			---	NO	---	INST TRIPPED																																									
			---	---	NOTE 28	INST DEVIATION (SAT/UNSAT)																																									

NOTES: 1. DURING NORMAL OPERATION, DRYWELL AIR TEMPERATURE HAS BEEN 90-110°F. ANY VALUE OUTSIDE THIS RANGE SHOULD BE INVESTIGATED. IF COMPUTER POINT B5070 IS INOP, DRYWELL TEMPERATURE MAY BE OBTAINED BY COMPLETING ATT 3Q.
 2. (*) - WHEN HANDLING IRRADIATED FUEL IN THE SECONDARY CONTAINMENT AND DURING CORE ALTERATIONS AND OPERATIONS WITH A POTENTIAL FOR DRAINING THE REACTOR VESSEL.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK
SYSTEM: Administrative
TASK: Respond To An Abnormal Release Of Gaseous Radioactivity
Calculate Iodine Release Rates
TASK NUMBER: 4000270401
JPM NUMBER: SROA.3

ALTERNATE PATH: K/A NUMBER: 2.3.11
IMPORTANCE FACTOR: 3.2
APPLICABILITY: RO SRO
EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: HC.OP-AB.ZZ-0126(Q), Rev.: 8

TOOLS AND EQUIPMENT: Calculator

VALIDATED JPM COMPLETION TIME: (5) Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:
1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: Minutes

ACTUAL TIME CRITICAL COMPLETION: N/A

JPM PERFORMED BY: _____ GRADE: SAT UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Administrative

TASK: Respond To An Abnormal Release Of Gaseous Radioactivity
Calculate Iodine Release Rates

TASK NUMBER: 4000270401

INITIAL CONDITIONS:

1. North Plant Vent (NPV) Stack radiation monitoring activity is rising on RM-11 point 9RX590.
2. SPDS is unavailable.
3. Abnormals AB-126 and AB-127 are being executed to determine and stop the release of activity.
4. NPV Exh Flow instrumentation is inoperable. Flow is being estimated in accordance with HC.OP-DL.ZZ-0026(Q), Attachment 3u (Provided).

INITIATING CUE:

Using the RM-11, determine the Iodine Release rate from the NPV.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM:
TASK:

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains/locates procedures HC.OP-AB.ZZ-0126 and HC.OP-AB.ZZ-0127.	Operator obtains the correct procedures.		
		Operator determines beginning step of the procedure.	Operator determines correct beginning step to be 4.8.		
		START TIME: _____			
	4.8	USE the SPDS Noble Gas Total OR PERFORM the following calculations to determine the total release rates for Noble Gas or Iodine.	Operator determines that the correct step to calculate the Iodine release from the NPV is 4.8.2		
	4.8.1	<p>CALCULATE the total Noble Gas release rate from Hope Creek Generating Station by adding all gaseous effluent channels - SPV (9RX580), NPV (9RX590), FRVS (9RX680), HTV(9RX518):</p> $\frac{\mu\text{Ci/sec}}{\text{Total}} = \frac{\mu\text{Ci/sec}}{\text{SPV}} + \frac{\mu\text{Ci/sec}}{\text{NPV}} + \frac{\mu\text{Ci/sec}}{\text{FRVS}} + \frac{\mu\text{Ci/sec}}{\text{HTV}}$		N/A	N/A

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM:
TASK:

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	4.8.2	IF the effluent (μCi/sec) channel on the RM-11 is NOT operating for a specific plant vent, THEN CALCULATE the Noble Gas release rate for that vent using the following:	Operator manipulates the RM-11 terminal to obtain the value of Iodine release from the 9RX601 detector and enters the value into the formula; then the operator transfers the Plant Vent Exh Flow value from Attachment 3u of HC.OP-DL.ZZ-0026 (provided); then calculates the Iodine release rate. Calculated Value = 32.02 μCi/sec = 1.38E-7μCi/cc*49155.4*472		
		$\frac{\mu\text{Ci/sec (n.g.)}}{\mu\text{Ci/cc (n.g.)}} = \frac{\text{Plant Vent Exh Flow in cfm}}{472}$ <p>where:</p> <ul style="list-style-type: none"> μCi/sec (n.g.) - the calculated release rate from the specified plant vent (Noble Gas) μCi/cc (n.g.) - The concentration of Noble Gas obtained from the RM-11 (the operable channel will be highlighted in GREEN) <u>OR</u> from an actual sample of the plant vent 472 - The conversion factor in units of cc/sec/cfm <p>STOP TIME: _____</p>			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. North Plant Vent (NPV) Stack radiation monitoring activity is rising on RM-11 point 9RX590.
2. SPDS is unavailable.
3. Abnormals AB-126 and AB-127 are being executed to determine and stop the release of activity.
4. NPV Exh Flow instrumentation is inoperable. Flow is being estimated in accordance with HC.OP-DL.ZZ-0026(Q), Attachment 3u (Provided).

INITIATING CUE:

Using the RM-11, determine the Iodine Release rate from the NPV.

JOB PERFORMANCE MEASURE
SIMULATOR INSTRUCTIONS

Reset to IC-1

Insert Malfunctions:

RM9590 @ 1600

RM9601 @ 1.38 E-7

TRAINING ONLY

ATTACHMENT 3u

**Radioactive Gaseous Effluent Monitoring (North Plant Vent)
T/S 6.8.4.g ODCM TABLE 3.3.7.11-1 ACTION 122**

If the North Plant Vent Flow Rate Monitor is Inoperable,
then Effluent Releases via this pathway may continue for up to 30 days provided flow rate is estimated at least once per 4 hours.
Readings are taken every 3 hours to ensure that the 4 hour Tech Spec Action limit is not exceeded per administrative requirements and after a change in the ventilation line-up.
If flow indication(s) become unavailable, then the "NORM" flow value may be logged for the specific fan alignment.

HCGS

DATE: Today's Date

Location Aux/Turb/Radwaste

PARAMETER		NORM	ENTER TIME OF EACH READING BELOW							COMMENTS
			NOW							
SOLID RADWASTE EXH FAN	A318	17,000	16863							
SOLID RADWASTE EXH FAN	B318	17,000	17245							
CHEM LAB EXH	A307	7,500	7496							
CHEM LAB EXH	B307	7,500	7519							
OFFGAS DISCHARGE	HA-XR-10022 OR HA-FI5665	---	32.4							
TOTAL FLOW			49155.4							
ESTIMATED TOTAL FLOW REPORTED TO RAD PRO - (YES)			Yes							

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK
SYSTEM: Emergency Plan Implementation
TASK: Classify an Emergency Event and prepare the Initial Contact Message Form
TASK NUMBER: 2000500302
JPM NUMBER: [SRO A.4]

ALTERNATE PATH: K/A NUMBER: 2.4.38
IMPORTANCE FACTOR: 4.0
APPLICABILITY: RO SRO
EO RO STA SRO

EVALUATION SETTING/METHOD: Control Room Simulate/Simulator Simulate

REFERENCES: HECG-HECG-TOC, Rev.: 30

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 20 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: 15/13 Minutes

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:
1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ Minutes

JPM PERFORMED BY: _____ GRADE: SAT UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Emergency Plan Implementation

TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

TASK NUMBER: 2000500302

INITIAL CONDITIONS:

1. With the plant operating at 100% power, Hope Creek experiences an earthquake which indicates a magnitude of $> 0.1g$.
2. Control Room Annunciator C6-C4 is in.
3. ON Panel 10C673:
 - a. The SMA-3 Event Indicator is White
 - b. The Strong Motion Accelerograph Tape Machines have advanced but are not currently running
 - c. The AMBER alarm light on the Seismic Switch Power Supply Drawer is lit
4. Numerous amber lights and 3 red lights are lit on the response spectrum analyzer.
5. A LOCA results. The Reactor is successfully scrammed, with RPV level dropping rapidly to $-250''$; then stabilizing between $-225''$ and $-205''$, being maintained using all available ECCS.
6. Drywell Pressure peaked at 44 psig, then dropped to < 2 psig over the next 90 seconds, and continues to slowly drop.
7. The current 33 ft. elevation wind direction is from 275° at 7 mph.
8. A Radiological Release is **NOT** in progress.

INITIATING CUE:

Based on this information, classify this event and make the initial notifications. This is a time critical task, and has two time critical elements.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: Emergency Plan Implementation
 TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Start Time: _____ Operator obtains procedure HECG.	Start time should be logged after the operator has reviewed the initial conditions and repeated the task back. Operator obtains the correct procedure		
	ECG Section i.IV.C.1	Assess the event and/or plant conditions and DETERMINE which ECG section(s) is most appropriate.	Operator assesses the initial conditions, and determines that Table 3, Fission Product Barriers, and 9.0, Hazards-Internal/External, are the appropriate ECG sections.		
	ECG Section i.IV.C.2	REFER to Section EAL/RAL Flowchart diagram(s), and identify the Initiating Conditions that are related to the event/condition that has occurred or is ongoing.	Operator refers to Table 3.0 and Flowchart Diagrams and identifies that the Initial Conditions for Table 3.0 and EAL 9.5.2 are related to the event that has occurred.		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: Emergency Plan Implementation
 TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	ECG Section i.IV.C.3	<p>REVIEW the associated EALs or RALs as compared to the event and SELECT the <u>highest</u> appropriate emergency or reportable action level. If identification of an EAL is questionable, refer to paragraph IV.A above.</p> <p>If there is any doubt with regard to assessment of a particular EAL or RAL, the <u>ECG Technical Basis Document</u> should be reviewed. Words in an EAL or RAL that are bold face are either threshold values associated with that action level or are words that are defined for that specific EAL/RAL.</p>	Operator reviews the EALs in section 9.5, and determines that EAL #9.5.2 is the highest emergency action level met or exceeded (ALERT).		
	Table 3.0 1.	In the table review the Emergency Action Levels of all columns and identify which need further review.	Operator reviews the EALs of all columns, and determines that all columns need further review.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Emergency Plan Implementation
TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)															
*	Table 3.0 2.	For each of the three barriers, determine the EAL with the highest point value, and circle the EAL # and point value. No more than one EAL should be selected for each barrier.	Operator determines that the following EALs have been exceeded and represent the highest value met or exceeded for the respective column: 3.1.1.b; 3.2.2.b or 3.2.1.b; 3.3.2.b or 3.3.2.d. Operator circles the EAL numbers and point values for the EALs listed above. Examiners Note: Circling is not critical.																	
*	Table 3.0 3.	Add the point values circled for the three barriers and enter the total below: _____	Operator adds the values (should be circled), and enters the value 10 in the appropriate space. Examiners Note: Obtaining this value for future use is critical; marking it on Table 3.0 is not.																	
*	Table 3.0 4.	Classify based on the point value sum as follows: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>If the sum is:</th> <th>Classify as:</th> <th>Refer to:</th> </tr> </thead> <tbody> <tr> <td>1,2</td> <td>UNUSUAL EVENT</td> <td>ATT. 1</td> </tr> <tr> <td>3,4</td> <td>ALERT</td> <td>ATT. 2</td> </tr> <tr> <td>5,6,7,8</td> <td>SITE AREA</td> <td>ATT. 3</td> </tr> <tr> <td>9,10</td> <td>GENERAL</td> <td>ATT. 4</td> </tr> </tbody> </table>	If the sum is:	Classify as:	Refer to:	1,2	UNUSUAL EVENT	ATT. 1	3,4	ALERT	ATT. 2	5,6,7,8	SITE AREA	ATT. 3	9,10	GENERAL	ATT. 4	Operator determines that this classification is higher than the classification on EAL 9.5.2 and classifies the event as a General Emergency based on Table 3.0		
If the sum is:	Classify as:	Refer to:																		
1,2	UNUSUAL EVENT	ATT. 1																		
3,4	ALERT	ATT. 2																		
5,6,7,8	SITE AREA	ATT. 3																		
9,10	GENERAL	ATT. 4																		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Emergency Plan Implementation
TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	Table 3.0 5.	Implement the appropriate ECG Attachment per the above chart.	Operator implements Attachment 4.		
*	ECG Att. 4 I.A	<p>I. <u>EMERGENCY COORDINATOR(EC) LOG SHEET</u></p> <p>A. DECLARE A GENERAL EMERGENCY AT HOPE CREEK</p> <p>EAL #(s) _____, _____, _____</p> <p>Declared at _____ hrs on _____ time date</p>	<p>Operator declares a General Emergency, places the EAL # s 3.1.1.b, 3.2.2.b or 3.2.1.b, 3.3.2.b or 3.3.2.d, time and date in the appropriate spots in attachment 4, and initials the step as the EC.</p> <p>Examiners Note: Copy the declaration time that the operator entered on Att. 4; <u>the difference between the START time and the Declared time is the first critical time</u> (15 min.) Initialing the step is not critical.</p>		
	ECG Att. 4 I.B.1	<p>B. NOTIFICATIONS</p> <p>1. CALL the Communicators to the Control Room</p>	<p>Operator calls the communicator using the plant page.</p> <p>Examiners Role-play: After 2 minutes, report as the communicators and give your name as CM1 and CM2.</p>		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: Emergency Plan Implementation
 TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	ECG Att. 4 I.B.2	2. MAKE A PAR by the following steps; a. REFER to Predetermined PAR Flowchart on Pg. 3 and DETERMINE the appropriate PAR. b. <u>IF</u> a Radiologically Based PAR is <u>IMMEDIATELY</u> available, <u>THEN COMPARE</u> the two PARs and choose the most appropriate for inclusion on the ICMF.	Operator Refers to pg. 3 and 4, determines that a GE Based 10 Points PAR is appropriate [EVACUATE ALL SECTORS 0-5 MILES, EVACUATE DOWNWIND +1 SECTOR 5-10 MILES(ENE-E-ESE), SHELTER ALL REMAINING SECTORS, 5-10 MILES]. Examiners Cue: If asked, a Radiologically Based PAR is not available.		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: Emergency Plan Implementation
 TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	ECG Att. 4 I.B.3	3. COMPLETE the INITIAL CONTACT MESSAGE FORM (ICMF) (last page of this attachment).	Operator Completes the ICMF. Examiners Note: If asked if there is a radiological release in progress, reply, "No release is in progress". Examiners Note: See the attached ICMF for an example of what the form should look like when filled out properly. Note that the exact words do not have to be in the "DESCRIPTION OF EVENT", but the description must convey the sense of the Initiating Condition for EALs 3.1.1.b, 3.2.2.b/3.2.1.b, 3.3.2.b/3.3.2.d. The operator may place the Examiner's name as the Communicator or tell the Examiner to place his/her name as the Communicator.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Emergency Plan Implementation

TASK: Classify an Emergency Event and prepare the Initial Contact Message Form

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	ECG Att. 4 I.B.4	PROVIDE the ICMF to the Communicator (CM1) and DIRECT the CM1 to implement ECG Attachment 6 . LOG TIME: _____	Operator provides the ICMF to CM1 and directs implementation of Att.7. Examiners Note: Role-play as CM1 and repeat back the direction as given. Examiners Note: <u>The difference between the declaration and this LOG TIME is the second critical time (13 min.)</u>		
	ECG Att. 4 I.B.5	DIRECT the Secondary Communicator (CM2) to implement ECG Attachment 8 for a GENERAL EMERGENCY. STOP TIME: _____	Operator directs CM2 to implement Att.8 for a General Emergency. Examiners Note: Role-play as CM2 and repeat back the direction as given, provide Terminating Cue.		

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. With the plant operating at 100% power, Hope Creek experiences an earthquake which indicates a magnitude of $> 0.1g$.
2. Control Room Annunciator C6-C4 is in.
3. ON Panel 10C673:
 - a. The SMA-3 Event Indicator is White
 - b. The Strong Motion Accelerograph Tape Machines have advanced but are not currently running
 - c. The AMBER alarm light on the Seismic Switch Power Supply Drawer is lit
4. Numerous amber lights and 3 red lights are lit on the response spectrum analyzer.
5. A LOCA results. The Reactor is successfully scrammed, with RPV level dropping rapidly to $-250''$; then stabilizing between $-225''$ and $-205''$, being maintained using all available ECCS.
6. Drywell Pressure peaked at 44 psig, then dropped to < 2 psig over the next 90 seconds, and continues to slowly drop.
7. The current 33 ft. elevation wind direction is from 275° at 7 mph.
8. A Radiological Release is NOT in progress.

INITIATING CUE:

Based on this information, classify this event and make the initial notifications. This is a time critical task, and has two time critical elements.

TRAINING ONLY
Examiner's Copy

ECG
ATT 4
Pg. 5 of 5

INITIAL CONTACT MESSAGE FORM

I. THIS IS Inserts CM1's name, COMMUNICATOR IN THE CONTROL ROOM
(NAME) TSC
 EOF

AT THE **HOPE CREEK** NUCLEAR GENERATING STATION.

IIa. THIS IS NOTIFICATION OF A **GENERAL EMERGENCY** WHICH WAS
DECLARED AT Today's Time ON Today's Date.
(TIME - 24 HOUR CLOCK) (DATE)
EAL #(s) 3.1.1.b, 3.2.2.b or 3.2.1.b, 3.3.2.b or 3.3.2.d
DESCRIPTION OF EVENT: _____
LOSS OF FUEL CLAD, REACTOR COOLANT BOUNDARY, AND CONTAINMENT BARRIERS

IIb. THIS IS NOTIFICATION OF A **PROTECTIVE ACTION RECOMMENDATION**
UPGRADE WHICH WAS MADE AT _____ HRS ON _____
(24 HOUR CLOCK) (DATE)
Reason for PAR Upgrade: _____

III. NO RADIOLOGICAL RELEASE IS IN PROGRESS. } see NOTE
 THERE IS A RADIOLOGICAL RELEASE IN PROGRESS. } for release
definition

IV. 33 FT. LEVEL WIND DIRECTION (From): 275 WIND SPEED 7
(From MET Computer) (DEGREES) (MPH)

V. WE RECOMMEND **EVACUATION** AS FOLLOWS

Sectors	Dist. - Miles
All	0-5
ENE-E-ESE	5-10

WE RECOMMEND **SHELTERING** AS FOLLOWS

All Remaining	5-10
---------------	------

Performer's Initials
EC Initials
(Approval to Transmit ICMF)

NOTE:
Radiological Release is defined as: Plant Effluent > Tech Spec Limit of 1.20E+04 μ Ci/sec
Noble Gas or 1.70E+01 μ Ci/sec I-131.

ADMINISTRATIVE TOPICS

Facility: <u>HOPE CREEK</u>	Date of Examination: <u>3/11/02</u>
Examination Level: <input checked="" type="checkbox"/> RO <input type="checkbox"/> SRO	Operating Test Number: _____
TOPIC: <u>A.1-1</u>	QUESTION: <u>1</u>
Subject Description: Plant Parameter Verification	
K/A: 2.1.25 Ability to obtain and interpret station reference materials such as graphs/monographs/and tables which contain data. (2.8)	
DESCRIPTION: Question-Given plant conditions, determine the required Circulation Water System requirements for extreme cold weather.	
QUESTION:	
Given the following:	
<ul style="list-style-type: none">• Three (3) Circulating Water Pumps are in operation• HV-2174, A&B CLG TWR DE-ICING VALVES are open• Average Basin water temperature Computer Point A2769 is 55F• Outside ambient air temperature is 25F• Cooling Tower Blowdown return temperature (daily average) is 75F• Thermal release rate to the river is 576 MBtu's/hr• A small amount of ice has formed on the Fill support Columns and Beams of the Cooling Tower• There is a very small ice formation on the Fill Sheets between the supports• Minimal ice has formed on the Support Columns	
Determine if any actions are required for continued operation of the Circulating Water System.	
ANSWER: Reference HC.OP-SO.DA-0001	
Per 5.3.4.A.1, Four Circulating Water Pumps should be in operation.	
The current operating region is in CENTRAL SHUT-OFF VALVES CLOSED (Att.1)	
Operation of HV-2174 A&B is not required because ice formation is within the recommendations of Note 5.3.7, but continuous monitoring is required.	

ADMINISTRATIVE TOPICS

Given the following:

- Three (3) Circulating Water Pumps are in operation
- HV-2174, A&B CLG TWR DE-ICING VALVES are open
- Average Basin water temperature Computer Point A2769 is 55F
- Outside ambient air temperature is 25F
- Cooling Tower Blowdown return temperature (daily average) is 75F
- Thermal release rate to the river is 576 MBtu's/hr
- A small amount of ice has formed on the Fill support Columns and Beams of the Cooling Tower
- There is a very small ice formation on the Fill Sheets between the supports
- Minimal ice has formed on the Support Columns

Determine if any actions are required for continued operation of the Circulating Water System.

ADMINISTRATIVE TOPICS

Facility: <u>HOPE CREEK</u>	Date of Examination: <u>2/4/02</u>
Examination Level: <input checked="" type="checkbox"/> RO <input type="checkbox"/> SRO	Operating Test Number: _____
TOPIC: <u>A.1-1</u>	QUESTION: <u>2</u>
Subject Description: Plant Parameter Verification	
K/A: 2.1.25 Ability to obtain and interpret station reference materials such as graphs/mongraphs/and tables which contain data. (2.8)	
DESCRIPTION: Question- Obtain maximum RWCU return to Feedwater Temperature.	
QUESTION:	
Given the following:	
<ul style="list-style-type: none">• RWCU is being placed in service• Both RWCU pumps are running• HV-F044, FLTR DEMIN BYPASS is throttled such that Computer Point A2856 RWCU OUTLET FLOW indicates 315 gpm• RWCU F/D flow inlet temperature is 120F• The first Filter/Demin Bed is in service	
What is the maximum RWCU RETURN TO FEEDWATER FLOW TEMP (A215) that would ensure that the total RWCU F/D flow through the F/D beds is \leq 300 gpm when placing the second RWCU Filter/Demin in-service?	
ANSWER:	
252F <u>+2F</u>	
Using Attachment 1 of HC.OP-SO.BG-0001.	

ADMINISTRATIVE TOPICS

Given the following:

- RWCU is being placed in service
- Both RWCU pumps are running
- HV-F044, FLTR DEMIN BYPASS is throttled such that Computer Point A2856 RWCU OUTLET FLOW indicates 315 gpm
- RWCU F/D flow inlet temperature is 120F
- The first Filter/Demin Bed is in service

What is the maximum RWCU RETURN TO FEEDWATER FLOW TEMP (A215) that would ensure that the total RWCU F/D flow through the F/D beds is \leq 300 gpm when placing the second RWCU Filter/Demin in-service?

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK
SYSTEM: Administrative
TASK: Perform A Shift Turnover As On-Coming/Off-Going NCO
TASK NUMBER: 2990630301
JPM NUMBER: RO A1-2

ALTERNATE PATH: K/A NUMBER: 2.1.3
IMPORTANCE FACTOR: $\frac{3.0}{RO}$ $\frac{\quad}{SRO}$
APPLICABILITY: EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: SH.OP-AP.ZZ-0107(Q), Rev.: 2

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: (16) Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:
1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ N/A

JPM PERFORMED BY: _____ GRADE: SAT UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Administrative

TASK: Perform A Shift Turnover As On-Coming/Off-Going NCO

TASK NUMBER: 2990630301

INITIAL CONDITIONS:

1. You are the Off-going Day Shift Reactor Operator.
2. Preparations for shift relief are in progress.
3. Salem 1 and 2 are on line.
4. 10F104 Air Dryer is in service, 00F104 is in standby.
5. All Auxilliary Boilers are available.

INITIATING CUE:

Complete the Equipment Status Checklist (Attachment 6), except for the Control Room Key Audit, in accordance with SH.OP-AP.ZZ-0107.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative
TASK: Perform A Shift Turnover As On-Coming/Off-Going NCO

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains/locates procedure SH.OP-AP.ZZ-0107.	Operator obtains the correct procedure.		
		Operator determines beginning step of the procedure.	Operator determines correct beginning step to be 5.2.3.		
*	5.2.2	<p>START TIME: _____</p> <p>Each off-going operator should prepare a listing highlighting planned evolutions, comments, equipment abnormalities, and other items affecting plant operations to aid in the turnover. The appropriate attachment should be used to document this information.</p>	<p>Operator obtains a copy of Attachment 6, and commences to complete while walking-down the control room boards.</p> <p>Examiner Note: See attached for the completed attachment. Comments in the REMARKS section are not critical. Critical aspect of this step is that the in-service equipment and the OOS equipment be noted properly. Except that:</p> <ul style="list-style-type: none"> The RWM may not be circled as operable, since power is above the LPAP. 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative
TASK: Perform A Shift Turnover As On-Coming/Off-Going NCO

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*			Operator observes that the RCIC HV-F012 is closed and is required to be open. Examiner Cue: If asked, provide cue to open HV-F012. (Operator may wait until completion of attachment before informing CRS.) Operator opens HV-F012.		
		STOP TIME: _____	Operator reports the status of the checklist.		

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. You are the Off-going Day Shift Reactor Operator.
2. Preparations for shift relief are in progress.
3. Salem 1 and 2 are on line.
4. 10F104 Air Dryer is in service, 00F104 is in standby.
5. All Auxilliary Boilers are available.

INITIATING CUE:

Complete the Equipment Status Checklist (Attachment 6), except for the Control Room Key Audit, in accordance with SH.OP-AP.ZZ-0107.

JOB PERFORMANCE MEASURE
SIMULATOR INSTRUCTIONS

Reset to IC-05

Bypass "C" APRM, insert Malfunction NM21C @100.

Insert:

Malfunction CW05B

IO Override 5A21F, OVLO BP502 SW PUMP STOP to OFF

DEPRESS:

OVLDPWR FAILURE push button on the B SSW pump Bezel

STA SVC WTR PMPS & SCREEN SPRAY, CHANNEL B, MAN BYP push button on
10C651D

Acknowledge overhead alarms

Place RED Bezel cover over the B SSW Pump Controls.

Close the RCIC HV-F012, Pump Disch Isln.

Current Shift X Days _____ Nights _____ Date Today's Date

To be completed by the off-going RO/PO for turnover to the oncoming RO/PO.
 Circle designator for equipment in service,
 X over designator for INOP/Bypassed equipment.

Cooling Water

SSWS:	(A)	(C)	(B)	(D)	Remarks <u>B Pump tagged for maintenance</u>
SACS:	(A)	(C)	B	(D)	_____
TACS Loop:	(A)	B			_____
RACS:	A	(B)	(C)		_____

Condenser/Condensate

CW:	(A)	(B)	(C)	D	_____
SJAE:	A	(B)			_____
Offgas Train:	(Unit 1)		Common		_____
PCP:	(A)	(B)	C		_____
SCP:	(A)	(B)	C		_____
HWCI:	RUN		(STOP)		_____

Reactor Feedwater

A RFP:	(AUTO/MANUAL)				_____
B RFP:	(AUTO/MANUAL)				_____
C RFP:	(AUTO/MANUAL)				_____
Startup Valves	(AUTO/MANUAL)	(CLOSED)			_____

Reactor

RWCU Pump:	(A)	(B)			_____
RWCU Filter-Demin:	(A)	(B)			_____
Reactor Recirc Pumps:	(A)	(B)			_____
Recirc Control:	A		B		_____
	(AUTO/MAN)		(AUTO/MAN)		_____
CRD Pumps:	(A)	B			_____
CRD Stabilizer:	(A)	B			_____
CRD Flow Control:	(A)	B			_____

Nuclear Instrumentation

APRM:	(A)	(B)	(E)	(B)	(D)	(F)	_____		
IRM:	(A)	(C)	(E)	(G)	(B)	(D)	(F)	(H)	<u>C APRM INOP</u>
SRM:	(A)	(C)			(B)	(D)			_____
FLOW UNITS:	(A)	(C)			(B)	(D)			_____
RBM:	(A)				(B)				_____
RWM:	(Operable)				(Inoperable)				_____

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SH.OP-AP.ZZ-0107(Q)

ATTACHMENT 6
EQUIPMENT STATUS CHECKLIST
(Page 2 of 5)

						<u>Remarks</u>				
<u>Turbine:</u>										
T/G Oil Pump OP111										
Motor Suction Pump OP108										
Emergency Bearing Oil Pump OP112										
EHC Pumps:	(A)				B					
Lift Pumps:	A	B	C	D	E	F	G	H	J	
Seals:	(SSE)					AUX				
<u>Main Generator:</u>										
Voltage Regulator:	(AUTO)					MANUAL				
Auto Track:	(ON)					OFF				
Stabilizer:	(ON)					OFF				
Stator Cooling:	(A)					B				
SALEM Units On-line:	(1)		(2)			3				
<u>Diesel Generator:</u>										
	A		B		C	D				
<u>Chilled Water:</u>										
Turbine Bldg (K111):	A		(B)		(C)	D				
TB CW Pumps:	A		(B)		(C)					
TSC Chiller (K403):	(A)					B				
Control Area Chiller (K400):	(A)					B				
<u>Ventilation:</u>										
CREF:	A					B				
FRVS Recirc:	A		C		E	B		D	F	
FRVS Vent:	A					B				
Fans In Lockout:										<i>None</i>
<u>H2/O2 Analyzers:</u>										
	A					B				
<u>Fuel Pool Cooling Pumps:</u>										
	(A)					B				
<u>BOP System Bypass:</u>										
	(Yes)					No				<i>(Consistent With Plant Condition) SSW C/T</i>
<u>Feedwater Heaters:</u>										
	(Normal)									
<u>Air Systems:</u>										
Instrument Air Dryers:	(10F104)	00F104	1AF104							
Service Air:	(10K107)	00K107								
Emergency Instrument Air:	10K100									
PCIG:	A					B				
	AUTO	(AULD)				AUTO	(AULD)			
<u>Aux Boiler:</u>										
	(A)		B			C				

**ATTACHMENT 6
EQUIPMENT STATUS CHECKLIST
(Page 3 of 5)**

Core Spray

Component	I/D	Req	A	B	C	D	Remarks
Supp Pool Suct	HV-F001	O	O	O	O	O	
Pump Min Flow	HV-F031	O	O	O	N/A	N/A	
Full Flow Test	HV-F015	X	X	X	N/A	N/A	
Outbrd Inj.	HV-F004	O	O	O	N/A	N/A	
Inbrd Inj.	HV-F005	X	X	X	N/A	N/A	
Inbrd Inj.	HV-F006	X	X	X	N/A	N/A	
Inbrd Isol.	HV-F007	O	O	O	N/A	N/A	
Pump	P206	STBY	STBY	STBY	STBY	STBY	

HPCI

Component	I/D	Req	Act	Remarks
Inbrd Stm Isln	HV-F002	O	O	
Stm Warmup	HV-F100	X	X	
Outbrd Stm Isln	HV-F003	O	O	
Stm admission	HV-F001	X	X	
Turb Exhaust	HV-F071	O	O	
CST Suct	HV-F004	O	O	
Supp Pool Suct	HV-F042	X	X	
Pump Min Flow	HV-F012	X	X	
Cooling Wtr Isln	HV-F059	X	X	
Pump Disch Isln	HV-F007	O	O	
Disch to F.W.	HV-8278	X	X	
Disch to C.S.	HV-F006	X	X	
Full Flow Test	HV-F008	X	X	
Common Test to CST	HV-F011	X	X	
Flow Controller	FIC-R600	AUTO	AUTO	
		5600	5600	
Aux Oil Pump		AUTO	AUTO	

Training Only
Examiner's Copy
ATTACHMENT 6
EQUIPMENT STATUS CHECKLIST
(Page 4 of 5)

SH.OP-AP.ZZ-0107(Q)

RCIC

Component	I/D	Req	Act	Remarks
Inbrd Stm Isln	HV-F007	O	O	
Stm Warmup	HV-F076	X	X	
Outbrd Stm Isln	HV-F008	O	O	
Stm admission	HV-F045	X	X	
Turb Exhaust	HV-F059	O	O	
CST Suct	HV-F010	O	O	
Supp Pool Suct	HV-F031	X	X	
Pump Min Flow	SV-F019/SV-4405	X	X	
Cooling Wtr Isln	HV-F046	X	X	
Pump Disch Isln	HV-F012	O	O	<i>Found closed, opened</i>
Disch to F.W.	HV-F013	X	X	
Full Flow Test	HV-F022	X	X	
Flow Controller	FIC-R600	AUTO 600	AUTO 600	
Trip and throttle (valve)	HV-F4282	O	O	
Trip and Thrtl (actuator)	HV-F4282	ACTUATOR OPEN	ACTUATOR OPEN	

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK
SYSTEM: Administrative
TASK: Complete A Control Console Log For Conditions 1, 2 & 3
Perform alternate determination of Drywell Air Temperature
TASK NUMBER: 4010360301
JPM NUMBER: ROA2

ALTERNATE PATH: K/A NUMBER: 2.2.12
IMPORTANCE FACTOR: 3.0
APPLICABILITY: RO SRO
EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: HC.OP-DL.ZZ-0026(Q), Rev.: 80

TOOLS AND EQUIPMENT: Calculator

VALIDATED JPM COMPLETION TIME: (8) Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:
1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: Minutes

ACTUAL TIME CRITICAL COMPLETION: N/A

JPM PERFORMED BY: _____ GRADE: SAT UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Administrative

TASK: Complete A Control Console Log For Conditions 1, 2 & 3
Perform alternate determination of Drywell Air Temperature

TASK NUMBER: 4010360301

INITIAL CONDITIONS:

1. SPDS is out of service.

INITIATING CUE:

Complete HC.OP-DL.ZZ-0026(Q), Attachment 1a, Item 31, Drywell Air Temperature log entry.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative

TASK: Complete A Control Console Log For Conditions 1, 2 & 3 / Perform alternate determination of Drywell Air Temperature

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains/locates procedure HC.OP-DL.ZZ-0026(Q).	Operator obtains the correct procedure.		
		START TIME: _____			

ITEM	SURVEILLANCE	OPER COND	ACCEPTABLE LIMITS			INSTRUMENT (PANEL)	DAY	EVE	MID	COMMENTS
			MIN	NORM	MAX					
31.	DRYWELL AIR TEMPERATURE	1,2,3	---	90-110	135	B5070 (SPDS OR CRIDS) OR ATTACHMENT 3q LINE F	N/A	N/A		(NOTE 26)

26. DURING NORMAL OPERATION, DRYWELL AIR TEMPERATURE HAS BEEN 90-110°F. ANY VALUE OUTSIDE THIS RANGE SHOULD BE INVESTIGATED. IF COMPUTER POINT B5070 IS INOP, DRYWELL TEMPERATURE MAY BE OBTAINED BY COMPLETING ATT 3Q.

		Operator manipulates CRIDS to display B5070.			
		Operator observes the BAD indication for point B5070.			
		Operator determines that Note 26 applies and moves to Attachment 3q page 1 of 6 to calculate Drywell Air Temperature.			
# *	1.	RECORD computer point values from CRIDS or SPDS in Column A. (Computer points have the same numbers for both CRIDS and SPDS.)	Operator manipulates CRIDS to obtain the required input values and records them in Column A. Examiner Note: See Attached.		
# *	2.	In Column B, RECORD sum of Column A for each elevation zone.	Operator records in Column B, the sum of Column A for each elevation zone.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative

TASK: Complete A Control Console Log For Conditions 1, 2 & 3 / Perform alternate determination of Drywell Air Temperature.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
# *	3.	DIVIDE value obtained in Column B by number of operable computer inputs in Column A, <u>AND RECORD</u> result in Column C. (T/S require at least one operable input for each group.)	Operator divides the values obtained in Column B by number of operable computer inputs in Column A, <u>AND</u> records the results in Column C.		
# *	4.	MULTIPLY value obtained in Column C by value given in Column D <u>AND RECORD</u> result in Column E.	Operator multiplies the values obtained in Column C by values given in Column D <u>AND</u> records the result in Column E.		
# *	5.	ADD values obtained in Column E <u>AND RECORD</u> answer on Line F.	Operator adds the values obtained in Column E <u>AND</u> records the answers on Line F. EXAMINER NOTE: To be considered Satisfactory the calculated value of Drywell Air Temperature shall be 107 +1 F.		
	6.	RECORD value from Line F onto Attachment 1a Item 35. STOP TIME: _____	Examiner's Note: Typographical error. Should be line 31. Operator records the values from line F onto Attachment 1a item 31.		

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. SPDS is out of service.

INITIATING CUE:

Complete HC.OP-DL.ZZ-0026(Q), Attachment 1a, Item 31, Drywell Air Temperature log entry.

JOB PERFORMANCE MEASURE
SIMULATOR INSTRUCTIONS

Reset to IC-1.

Remove CRIDS B5070 from scan using the instructor station CRIDS terminal.

Insert Malfunction CC-03, SPDS Failure.

RESTORE B5070 TO SCAN AT THE COMPLETION OF THE JPM.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Administrative

TASK: Respond To An Abnormal Release Of Gaseous Radioactivity
Calculate Iodine Release Rates

TASK NUMBER: 4000270401

INITIAL CONDITIONS:

1. North Plant Vent (NPV) Stack radiation monitoring activity is rising on RM-11 point 9RX590.
2. SPDS is unavailable.
3. Abnormals AB-126 and AB-127 are being executed to determine and stop the release of activity.
4. NPV Exh Flow instrumentation is inoperable. Flow is being estimated in accordance with HC.OP-DL.ZZ-0026(Q), Attachment 3u (Provided).

INITIATING CUE:

Using the RM-11, determine the Iodine Release rate from the NPV.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM:
TASK:

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains/locates procedures HC.OP-AB.ZZ-0126 and HC.OP-AB.ZZ-0127.	Operator obtains the correct procedures.		
		Operator determines beginning step of the procedure.	Operator determines correct beginning step to be 4.8.		
		START TIME: _____			
	4.8	USE the SPDS Noble Gas Total OR PERFORM the following calculations to determine the total release rates for Noble Gas or Iodine.	Operator determines that the correct step to calculate the Iodine release from the NPV is 4.8.2		
	4.8.1	<p>CALCULATE the total Noble Gas release rate from Hope Creek Generating Station by adding all gaseous effluent channels - SPV (9RX580), NPV (9RX590), FRVS (9RX680), HTV(9RX518):</p> $\frac{\mu\text{Ci/sec}}{\text{Total}} = \frac{\mu\text{Ci/sec}}{\text{SPV}} + \frac{\mu\text{Ci/sec}}{\text{NPV}} + \frac{\mu\text{Ci/sec}}{\text{FRVS}} + \frac{\mu\text{Ci/sec}}{\text{HTV}}$		N/A	N/A

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM:
TASK:

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)	
*	4.8.2	IF the effluent (μCi/sec) channel on the RM-11 is NOT operating for a specific plant vent, THEN CALCULATE the Noble Gas release rate for that vent using the following:	Operator manipulates the RM-11 terminal to obtain the value of Iodine release from the 9RX601 detector and enters the value into the formula; then the operator transfers the Plant Vent Exh Flow value from Attachment 3u of HC.OP-DL.ZZ-0026 (provided); then calculates the Iodine release rate. Calculated Value = 32.02μCi/sec = 1.38E-7 μCi/cc * 49155.4 CFM * 472			
		$\frac{\mu\text{Ci/sec (n.g.)}}{\mu\text{Ci/cc (n.g.)}} = \frac{\text{Plant Vent Exh Flow in cfm}}{472}$ <p>where:</p> <ul style="list-style-type: none"> μCi/sec (n.g.) - the calculated release rate from the specified plant vent (Noble Gas) μCi/cc (n.g.) - The concentration of Noble Gas obtained from the RM-11 (the operable channel will be highlighted in GREEN) <u>OR</u> from an actual sample of the plant vent 472 - The conversion factor in units of cc/sec/cfm <p>STOP TIME: _____</p>				

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

- 1. North Plant Vent (NPV) Stack radiation monitoring activity is rising on RM-11 point 9RX590.**
- 2. SPDS is unavailable.**
- 3. Abnormals AB-126 and AB-127 are being executed to determine and stop the release of activity.**
- 4. NPV Exh Flow instrumentation is inoperable. Flow is being estimated in accordance with HC.OP-DL.ZZ-0026(Q), Attachment 3u (Provided).**

INITIATING CUE:

Using the RM-11, determine the Iodine Release rate from the NPV.

JOB PERFORMANCE MEASURE
SIMULATOR INSTRUCTIONS

Reset to IC-1

Insert Malfunctions:

RM9590 @ 1600

RM9601 @ 1.38 E-7

TRAINING ONLY

ATTACHMENT 3u

**Radioactive Gaseous Effluent Monitoring (North Plant Vent)
T/S 6.8.4.g ODCM TABLE 3.3.7.11-1 ACTION 122**

If the North Plant Vent Flow Rate Monitor is Inoperable, then Effluent Releases via this pathway may continue for up to 30 days provided flow rate is estimated at least once per 4 hours.
 Readings are taken every 3 hours to ensure that the 4 hour Tech Spec Action limit is not exceeded per administrative requirements and after a change in the ventilation line-up.
 If flow indication(s) become unavailable, then the "NORM" flow value may be logged for the specific fan alignment.

HCGS

DATE: Today's Date

Location Aux/Turb/Radwaste

PARAMETER		NORM	ENTER TIME OF EACH READING BELOW								COMMENTS
			<i>NOW</i>								
SOLID RADWASTE EXH FAN	A318	17,000	16863								
SOLID RADWASTE EXH FAN	B318	17,000	17245								
CHEM LAB EXH	A307	7,500	7496								
CHEM LAB EXH	B307	7,500	7519								
OFFGAS DISCHARGE	HA-XR-10022 OR HA-FI5665	---	32.4								
TOTAL FLOW			49155.4								
ESTIMATED TOTAL FLOW REPORTED TO RAD PRO - (YES)			Yes								

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK
SYSTEM: Emergency/ECG/E-Plan/Fire & Medical
TASK: Perform the Licensed Operator Review of the Operational Status Board-Hope Creek

TASK NUMBER:

JPM NUMBER: RO-A.4

ALTERNATE PATH:

K/A NUMBER: 2.4.39

IMPORTANCE FACTOR: $\frac{3.3}{RO}$ $\frac{SRO}{SRO}$

APPLICABILITY:

EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: Hope Creek Event Classification Guide, Attachment 8, Rev.: 7

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: (10) Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:

1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ N/A

JPM PERFORMED BY: _____ GRADE: SAT UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____



OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Emergency/ECG/E-Plan/Fire & Medical

TASK: Perform the Licensed Operator Review of the Operational Status Board-
Hope Creek

TASK NUMBER:

INITIAL CONDITIONS:

1. CRIDS is out of service.
2. A small LOCA has occurred.
3. The plant was scrammed approximately 20 minutes ago.
4. Operator actions were taken IAW the Emergency Operating Procedures, HC.OP-EO.ZZ-0101, RPV Control, and HC.OP-EO.ZZ-0102, Primary Containment Control
5. An alert was declared approximately 10 minutes ago.

INITIATING CUE:

Perform the Licensed Operator Review of the Operational Status Board-Hope Creek.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.



OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Emergency/ECG/E-Plan/Fire & Medical

TASK: Perform the Licensed Operator Review of the Operational Status Board-Hope Creek

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	2.	START TIME: _____ IF requested by the TSC, THEN COMPLETE the Operational Status Board (OSB) Form every 15 minutes; (TSS may modify the frequency or data list as appropriate) ()a. OBTAIN Licensed Operator review. STOP TIME: _____	<p>Examiner Note: All values are checked by designated Recorder indications, since, CRIDS is OOS.</p> <p>Examiner Note: Some values that are recorded are obtainable from more than one indicator. Due to differences in indicators, it is not critical to get an exact value. Values, however, should be approximately as noted.</p> <p>Operator reviews the OSB and compares it to the plant conditions.</p> <p>Operator identifies that II.A, RHR/LPCI FLOW A and RHR/LPCI FLOW C should be circled, since, they are not in the LPCI mode (see **). Operator corrects the OSB, AND initials.</p>		

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. CRIDS is out of service.
2. A small LOCA has occurred.
3. The plant was scrammed approximately 20 minutes ago.
4. Operator actions were taken IAW the Emergency Operating Procedures, HC.OP-EO.ZZ-0101, RPV Control, and HC.OP-EO.ZZ-0102, Primary Containment Control
5. An alert was declared approximately 10 minutes ago.

INITIATING CUE:

Perform the Licensed Operator Review of the Operational Status Board-Hope Creek.



Job Performance Measure
Simulator Setup
Optional

Reset Simulator to a low power IC

Insert RR31A2 @ 10%

Take scram actions

Restore level to 12.5-54 inches

Close MSIVs @ approx. 550 psig

Line up A RHR in SPC/SPS

Line up B RHR in Drywell Spray

Secure A-D Core Spray Pumps & C-D RHR pumps

Freeze simulator when stable and level is 12.5-54 inches

Darken the lower CRIDS screens to simulate CRIDS OOS.



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OSB

OPERATIONAL STATUS BOARD - HOPE CREEK

ECG
ATT 8
Pg. 6 of 9

- NOTE: 1) IF REQUESTED, TRANSMIT THIS FORM TO GROUP C (TSC AND EOF) EVERY 15 MINUTES.
2) PROVIDE A COPY TO THE OSC COORDINATOR.
3) SEE CRIDS PAGE 232 FOR DATA.

DATE: Today

TIMES (24-HOUR CLOCK)			Now			
I.	BALANCE OF PLANT	INST E PLAN	UNITS			
	A. CST LEVEL	(1)	X 10 ⁴ GAL	38.7		
	B. CONDENSER PRESSURE	(2)	IN. HGa	8		
	C. RCIC FLOW	(3)	GPM	0		
	D. FEED FLOW	(4)	MLB/HR	0.1		
II.	ECCS					
	A. RHR/LPCI FLOW-A**	(5)	GPM	10498		
	RHR/LPCI FLOW-C	(5)	GPM	0		
	RHR/LPCI FLOW-B**	(6)	GPM	9960		
	RHR/LPCI FLOW-D	(6)	GPM	0		
	B. HPCI PUMP FLOW	(7)	GPM	0		
	C. CORE SPRAY FLOW-A	(8)	GPM	0		
	CORE SPRAY FLOW-B	(9)	GPM	0		
	D. SRV (OPEN) STATUS	(10)	# OPEN	0		
III.	RX COOLANT SYSTEM					
	A. POWER	(11-16)	% or CPS	3.3 E3 cps		
	B. WATER LEVEL	(17,20,21,22)	IN.	33		
	C. PRESSURE	(18,19)	PSIG	325		
	D. TEMPERATURE	(23)	DEGREES F	430		
	E. RECIRC FLOW - A LOOP	(24)	X 10 ³ GPM	8.1		
	RECIRC FLOW - B LOOP	(24)	X 10 ³ GPM	0.1		
	F. JET PUMP FLOW (TOTAL)	(25)	MLB/HR	11.7		
IV.	CONTAINMENT					
	A. DRYWELL PRESSURE	(26,27)	PSIG	8		
	TEMPERATURE	(28,29)	DEGREES F	202		
	H2 CONC.	(30,31)	%	0		
	O2 CONC.	(30,31)	%	0		
	B. SUPP. CHAMBER PRESS.	(26,27)	PSIG	8		
	AIR TEMPERATURE	(28,29)	DEGREES F	100		
	WATER LEVEL	(32)	IN.	79.4		
	WATER TEMPERATURE	(33,34)	DEGREES F	105		
	C. RX BLDG. DELTA P	(35,36)	IN. H ₂ O	-0.56		
V.	SSCL					
	A. OFFSITE POWER AVAILABLE?		YES/NO	Yes		
	B. 3 OR MORE DG'S AVAILABLE?		YES/NO	Yes		
	C. DID ANY ECCS ACTUATE?		YES/NO	Yes		
	D. IS THE CONTAINMENT BARRIER FAILED?		YES/NO	No		

LICENSED OPERATOR REVIEW

INITIALS: INITIALS

OTHER SIGNIFICANT ITEMS

** IF NOT IN LPCI MODE FLOW RATE IS CIRCLED (I.e. S/D COOLING, CONT. SPRAY, ETC.)

HCGS

Rev. 07

SSCL

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STATION STATUS CHECKLIST

(Pg. 1 of 2)

ECG
ATT 8
Pg. 7 of 9

Operational Information

HOPE CREEK GENERATING STATION Message Date Today Time _____

Transmitted By: Name John Smith Position CM1

1. Date and Time Event Declared: Date Today Time _____ (CR/TSC/EOF)
(24 hr clock)

2. Event Classification: Unusual Event Site Area Emergency
 Alert General Emergency

3. Cause of Event: Primary Initiating Condition used for declaration

EAL #(s) 3.2.2.b

Description of the event Loss of Reactor Coolant System Boundary

4. Status of Reactor: Scrammed/Time _____ At Power
 Startup Hot Shutdown Cold Shutdown Refuel

5. Rx Pressure 332 psig Rx Temp 430 °F Rx Water Level 33 in.

6. Is offsite power available? YES NO

7. Are three or more diesel generators available? YES NO

8. Did any Emergency Core Cooling Systems actuate? YES NO

9. Is the Containment barrier failed? (Loss per EAL section 3.3) YES NO

10. Other pertinent information _____

HCGS

APPROVED: PJ
EC or TSS or SSM

Rev. 07

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OSB

OPERATIONAL STATUS BOARD - HOPE CREEK

ECG
ATT 8
Pg. 6 of 9

NOTE: 1) IF REQUESTED, TRANSMIT THIS FORM TO GROUP C (TSC AND EOP) EVERY 15 MINUTES.
2) PROVIDE A COPY TO THE OSC COORDINATOR.
3) SEE CRIDS PAGE 232 FOR DATA.

				DATE: <u>Today</u>			
				TIMES (24-HOUR CLOCK)			
				Now			
I.	BALANCE OF PLANT	INST E PLAN	UNITS	Now	_____	_____	_____
	A. CST LEVEL	(1)	X 10 ⁴ GAL	38.7	_____	_____	_____
	B. CONDENSER PRESSURE	(2)	IN. HGa	8	_____	_____	_____
	C. RCIC FLOW	(3)	GPM	0	_____	_____	_____
	D. FEED FLOW	(4)	MLB/HR	0.1	_____	_____	_____
II.	ECCS						
	A. RHR/LPCI FLOW-A**	(5)	GPM	10498	_____	_____	_____
	RHR/LPCI FLOW-C	(5)	GPM	0	_____	_____	_____
	RHR/LPCI FLOW-B**	(6)	GPM	9960	_____	_____	_____
	RHR/LPCI FLOW-D	(6)	GPM	0	_____	_____	_____
	B. HPCI PUMP FLOW	(7)	GPM	0	_____	_____	_____
	C. CORE SPRAY FLOW-A	(8)	GPM	0	_____	_____	_____
	CORE SPRAY FLOW-B	(9)	GPM	0	_____	_____	_____
	D. SRV (OPEN) STATUS	(10)	# OPEN	0	_____	_____	_____
III.	RX COOLANT SYSTEM						
	A. POWER	(11-16)	% or CPS	3.3 E3 cps	_____	_____	_____
	B. WATER LEVEL	(17,20,21,22)	IN.	33	_____	_____	_____
	C. PRESSURE	(18,19)	PSIG	325	_____	_____	_____
	D. TEMPERATURE	(23)	DEGREES F	430	_____	_____	_____
	E. RECIRC FLOW - A LOOP	(24)	X 10 ³ GPM	8.1	_____	_____	_____
	RECIRC FLOW - B LOOP	(24)	X 10 ³ GPM	0.1	_____	_____	_____
	F. JET PUMP FLOW (TOTAL)	(25)	MLB/HR	11.7	_____	_____	_____
IV.	CONTAINMENT						
	A. DRYWELL PRESSURE	(26,27)	PSIG	8	_____	_____	_____
	TEMPERATURE	(28,29)	DEGREES F	202	_____	_____	_____
	H2 CONC.	(30,31)	%	0	_____	_____	_____
	O2 CONC.	(30,31)	%	0	_____	_____	_____
	B. SUPP. CHAMBER PRESS.	(26,27)	PSIG	8	_____	_____	_____
	AIR TEMPERATURE	(28,29)	DEGREES F	100	_____	_____	_____
	WATER LEVEL	(32)	IN.	79.4	_____	_____	_____
	WATER TEMPERATURE	(33,34)	DEGREES F	105	_____	_____	_____
	C. RX BLDG. DELTA P	(35,36)	IN. H ₂ O	-0.56	_____	_____	_____
V.	SSCL						
	A. OFFSITE POWER AVAILABLE?		YES/NO	Yes	_____	_____	_____
	B. 3 OR MORE DG'S AVAILABLE?		YES/NO	Yes	_____	_____	_____
	C. DID ANY ECCS ACTUATE?		YES/NO	Yes	_____	_____	_____
	D. IS THE CONTAINMENT BARRIER FAILED?		YES/NO	No	_____	_____	_____
	LICENSED OPERATOR REVIEW		INITIALS:	_____	_____	_____	_____
	OTHER SIGNIFICANT ITEMS			_____	_____	_____	_____

** IF NOT IN LPCI MODE FLOW RATE IS CIRCLED (I.e. S/D COOLING, CONT. SPRAY, ETC.)