

JOB PERFORMANCE MEASURE

STATION: Hope Creek

2018 JG NRC
RO A1

Copy ____ of ____

SYSTEM: Reactor Recirculation

TASK NUMBER: 2020160101

TASK: Perform a Reactor Recirculation Pump Quick Restart

JPM NUMBER: 305H-JPM.ZZ011

REVISION: 04

SAP BET: NOH05JPZZ11E

K/A NUMBER: 2.1.12 Ability to apply Technical Specifications for a system.

IMPORTANCE FACTOR: RO: 2.9 SRO: 4.0

ALTERNATE PATH: ☐

APPLICABILITY: RO ☒

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: HC.OP-AB.RPV-0003, Rev. 32

TOOLS, AND EQUIPMENT: Steam Tables, Calculator

ESTIMATED COMPLETION TIME: 7 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A Minutes

JPM PERFORMED BY: _____

GRADE: SAT ☐ UNSAT ☐

ACTUAL COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION TIME: N/A Minutes

REASON IF UNSATISFACTORY:

EVALUATOR: _____
Signature

DATE: _____

JOB PERFORMANCE MEASURE

SYSTEM: Reactor Recirculation

TASK NUMBER: 2020160101

TASK: Perform a Reactor Recirculation Pump Quick Restart

INITIAL CONDIITONS:

1. The Reactor was scrammed when both Reactor Recirculation Pumps tripped.
2. Evidence of thermal stratification is present.
3. Actions have been taken in accordance with HC.OP-AB.RPV-0003 through Step G.11.

INITIATING CUE:

COMPLETE Step G.12 of HC.OP-AB.RPV-0003 for restart of Reactor Recirculation Pump A.

JPM NUMBER: ZZ011
 REV NUMBER: 04

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)
CUE:	PROVIDE the operator the initiating cue, a marked up copy of HC.OP-AB.RPV-0003, AND ENTER START TIME <u>AFTER</u> Operator repeats back the Initiating Cue. START TIME: _____			
G12.	ENSURE Differential Temperature requirements are met by completing Attachment 2. [T/S 4.4.1.4]	Operator proceeds to Attachment 2.		
ATTACHMENT 2 REACTOR RECIRCULATION PUMP PRE-START TEMPERATURE DIFFERENTIAL CRITERIA DETERMINATION				
1.0 REACTOR VESSEL TO BOTTOM HEAD DRAIN LINE DIFFERENTIAL TEMPERATURE CRITERIA				
1.1	Rx Pressure Vessel Steam Space Coolant Saturation Temperature. (Rx Pressure and Steam Tables) (Note 1)	*Operator determines Reactor Pressure (approximately 739 psig=754 psia) and determines Saturation Temperature (approximately 512F ±1F), and initials Step.		
Note 1:	Steam Table as part of this attachment may be utilized to determine temperature rounding the numbers in a conservative fashion. For a more accurate conversion from pressure to temperature a more detailed set of steam tables should be utilized.	Operator reads and initials Note 1.		
1.2	Bottom Head Drain Coolant Temperature. (Note 2) (Computer Point A2942)	*Operator obtains Bottom Head Drain Coolant Temperature using Computer Point A2942 (402F ±0.5F), and initials Step.		
Note 2:	RWCU Flow required for accurate Bottom Head Drain Coolant Temperature indication.	Operator reads and initials Note 2.		

JPM NUMBER: ZZ011
 REV NUMBER: 04

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)
1.3	≤ 145°F between Rx Pressure Vessel Steam Space Coolant <u>AND</u> Bottom Head Drain Line Coolant (A – B). [T/S 4.4.1.4]	*#Operator determines the difference between Rx Pressure Vessel Steam Space Coolant <u>AND</u> Bottom Head Drain Line Coolant is approximately 110F (ensure math is correct), and initials Step.		
1.4	Time Readings taken:	*#Operator enters the current time, and initials Step.		
2.0 REACTOR VESSEL TO RECIRCULATION LOOP DIFFERENTIAL TEMPERATURE CRITERIA				
2.1	Temperature of the Rx Coolant within the idle loop to be started up. (Note 3)	*#Operator determines Temperature of the Rx Coolant in Recirculation Loop A using TR-650-B31 Recirc Pump Suction Loop A <u>OR</u> CRIDS points A221 and A222 for A loop (469.4F, ±1F), and initials Step.		
Note 3:	Use TR-650-B31 Recirc Pump Suction Loop A(B) (if available) <u>OR</u> if above 400°F - CRIDS points A221 and A222 for A loop (A223 and A224 for B loop). <u>IF</u> below 400°F <u>AND</u> TR-650-B31 not available, <u>THEN</u> have I&C obtain temperatures using RTD ohm values (reference RTD ohm values to calibration data in TDR using HC.OP-GP.ZZ-0008(Q))	Operator reads and initials Note 3.		
2.2	Temperature of coolant in the Rx Pressure Vessel. (RX Pressure and Steam Tables) (Note 1)	*#Operator determines Reactor Pressure(approximately 739 psig=754 psia) and determines Saturation Temperature (approximately 512F ±1F), and initials Step.		

JPM NUMBER: ZZ011
 REV NUMBER: 04

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)
2.3	≤ 50°F between the Rx Coolant within the loop not in operation <u>AND</u> the Coolant in the Rx Pressure Vessel (A-B). [T/S 4.4.1.4]	*#Operator determines the difference between the Rx Coolant within the loop not in operation <u>AND</u> the Coolant in the Rx Pressure Vessel is approximately 42.6F (ensure math is correct), and initials Step.		
2.4	Time Readings taken:	*#Operator enters the current time, and initials Step.		
CONDITION G				
G.14	ENSURE Differential Temperature requirements are met by completing Attachment 2. [T/S 4.4.1.4]	Operator ensures Differential Temperature requirements are met and, *# initials Step.		
CUE:	<u>WHEN</u> operator informs you the task is complete, <u>OR</u> the JPM has been terminated for other reasons, <u>THEN RECORD</u> the STOP TIME. REPEAT BACK any message from the operator on the status of the JPM, and then state "This JPM is complete" . STOP TIME: _____			
Task Standard: Operator completes Step G.12 of HC.OP-AB.RPV-0003 for restart of Reactor Recirculation Pump A.				

**OPERATOR TRAINING PROGRAM
EVALUATOR FOLLOWUP QUESTION DOCUMENTATION**

JPM NUMBER: ZZ011
REV NUMBER: 04

NAME: _____
DATE: _____

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

JOB PERFORMANCE MEASURE

JPM NUMBER: ZZ011

REVISION HISTORY

Rev #	Date	Description	Validation Required?
04	7/5/2018	Initial Conditions changed due to simulator setup and procedure revision.	Y
04	7/26/2018	Incorporated comments from NRC validation.	N

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM NUMBER: ZZ011

REV#: 04

TASK: Perform a Reactor Recirculation Pump Quick Restart

- | | |
|--------------|---|
| <u> X </u> | 1. Task description and number, JPM description and number are identified. |
| <u> X </u> | 2. Knowledge and Abilities (K/A) is identified, and is: ≥ 3.0 (LOR); or ≥ 2.5 (ILT); or justification is provided. |
| <u> X </u> | 3. License level identified. (SRO,RO,STA,NLO) |
| <u> X </u> | 4. Performance location specified (In-Plant, Control Room, Simulator, or Classroom). |
| <u> X </u> | 5. Initial setup conditions are identified. |
| <u> X </u> | 6. Initiating and terminating cues are properly identified. |
| <u> X </u> | 7. Task standards for successful completion are identified. |
| <u> X </u> | 8. Critical steps meet the criteria for critical steps and are identified with an asterisk (*). Sequence Critical Steps are identified with a pound sign (#). |
| <u> X </u> | 9. JPM has multiple Critical Tasks, or justification of the basis for a single critical task. |
| <u> X </u> | 10. Procedure(s) referenced by this JPM match the most current revision of that procedure. |
| <u> X </u> | 11. Cues both verbal and visual are complete and correct. |
| <u> X </u> | 12. Performance standards are specific in exact control and indication nomenclature (switch position, meter reading) even if these criteria are not specified in the procedural step. |
| <u> X </u> | 13. Statements describing important actions or observations that should be made by the operator are included (if required.) |
| <u> X </u> | 14. Validation time is included. |
| <u> X </u> | 15. JPM is identified as Time Critical and includes Critical Time (if required). |

VALIDATED BY:

Qualification Level Required: RO

<u> ON FILE </u>	<u> RO </u>	<u> ON FILE </u>	<u> 7/5/2018 </u>
Name	Qual	Signature	Date

<u> ON FILE </u>	<u> RO </u>	<u> ON FILE </u>	<u> 7/5/2018 </u>
Name	Qual	Signature	Date

JOB PERFORMANCE MEASURE SIMULATOR SETUP INSTRUCTIONS

JPM NUMBER: ZZ011

REV#: 04

INITIAL CONDITIONS:

I.C.

Initial	
	INITIALIZE to any 50-100% power IC.
	TRIP both RR Pump Drive Motor Breakers.
	TAKE ACTIONS IAW HC.OP-AB.ZZ-0001.
	IMPLEMENT EOP-101 to stabilize plant at approximately 740 psig RPV pressure.
	IMPLEMENT HC.OP-AB.RPV-0003 Condition G, G1-G11.
	ACKNOWLEDGE alarms.
	PLACE Simulator in FREEZE.

PREP FOR TRAINING (i.e., RM-11 set points, procedures, bezel covers)

Initial	Description
	MARKUP HC.OP-AB.RPV-0003 up to and including G.13.
	ENSURE Mode Switch Key is removed.
	COMPLETE "Simulator Ready-for-Training/Examination Checklist".

EVENT FILE:

Initial	ET	
		Event code:
		Description:

MALFUNCTION SCHEDULE:

Initial	@Time	Event	Action	Description

REMOTE SCHEDULE:

Initial	@Time	Event	Action	Description

OVERRIDE SCHEDULE:

Initial	@Time	Event	Action	Description

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. The Reactor was scrammed when both Reactor Recirculation Pumps tripped.
2. Evidence of thermal stratification is present.
3. Actions have been taken in accordance with HC.OP-AB.RPV-0003 through Step G.11.

INITIATING CUE:

COMPLETE Step G.12 of HC.OP-AB.RPV-0003 for restart of Reactor Recirculation Pump A.

JOB PERFORMANCE MEASURE

STATION: Hope Creek

2018 JG NRC
RO A2

COPY ____ OF ____

SYSTEM: Administrative

TASK NUMBER: 4010010201

TASK: Complete The Daily Surveillance Logs

JPM NUMBER: 305H-JPM.ZZ062

REVISION: 00

SAP BET: NOH05JPZZ62E

K/A NUMBER: 2.1.18 Ability to make accurate / clear and concise logs/records/status boards/ and reports.

IMPORTANCE FACTOR: RO: 2.9 SRO: 3.0

ALTERNATE PATH: ☐

APPLICABILITY: RO ☒

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: HC.OP-DL.ZZ-0026, Rev. 160

TOOLS, AND EQUIPMENT: Black pen and Red Pen

ESTIMATED COMPLETION TIME: 20 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A Minutes

JPM PERFORMED BY: _____

GRADE: SAT ☐

UNSAT ☐

ACTUAL COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION TIME: N/A Minutes

REASON IF UNSATISFACTORY:

EVALUATOR: _____
Signature

DATE: _____

JOB PERFORMANCE MEASURE

SYSTEM: Administrative

TASK NUMBER: 4010010201

TASK: Complete The Daily Surveillance Logs

INITIAL CONDIITONS:

1. The plant recently completed a startup to 100% power from a refueling outage.
2. The plant has been at 100% power since yesterday at 0300.

INITIATING CUE:

COMPLETE the **Day Shift** daily Surveillance Logs for 10C609, 10C611, AND MSL Radiation (Items 62-75 of Attachment 1a) in accordance with HC.OP-DL.ZZ-0026.

JPM NUMBER: ZZ062
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)
CUE:	PROVIDE the operator the initiating cue, a copy of appropriate pages of HC.OP-DL.ZZ-0026, AND ENTER START TIME <u>AFTER</u> Operator repeats back the Initiating Cue. START TIME: _____			
	Operator obtains the correct procedure.	Operator obtains HC.OP-DL.ZZ-0026.		
3.1	COMPLETE Attachment 1 (all subsections) daily.	*Operator records readings for Items 62-75 of Attachment 1a, Day Shift. Examiner Note: IAW the Initiating Cue, only Items 62-75 of Attachment 1a are required. Refer to Exhibit 1 for expected values. Values are typical and may not exactly match observed values. Readings are SAT if they are within ± 1 meter division of actual reading.		
		Examiner Note: Completion of Note 54 calculation is appropriate due to plant conditions.		
3.2	<u>IF</u> in OP CON 4 or 5, <u>THEN</u> COMPLETE Attachment 2 ...	Operator determines this step is N/A.		
3.3	COMPLETE Attachment 4 to perform surveillances ...	Operator determines this step is N/A.		
3.4	ENTER the Operational Condition and date on each page of the log in the blanks provided.	*Operator enters the Operational Condition and date in the appropriate blanks.		
3.5	COMPLETE the applicable subsections of Attachment 3 ...	Operator determines this step is N/A.		
3.6	COMPLETE all surveillances as indicated in each log. <u>IF</u> a Technical Specification Surveillance cannot be successfully completed <u>OR</u> is out-of-spec, <u>THEN</u> IMMEDIATELY NOTIFY the SM/CRS AND the Duty RO AND corrective action initiated shall be noted in the comments section.	Examiner Note: The Operator may not perform this step until completion of Step 3.7. Operator may perform Step 3.6.3 and include the T/S references. *Operator determines that the deviation for Item 72 exceeds the MAX DEVIATION, <u>THEN IMMEDIATELY NOTIFIES</u> the SM/CRS AND the Duty RO, AND notes corrective action in any open space on the log.		

JPM NUMBER: ZZ062
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)
CUE:	Repeat back message from Operator on Item 72 deviation.			
		<p>*Operator determines that the deviation for Item 75, NOTE 54 calculation for MSL RMS A is less than the MIN value,</p> <p><u>THEN IMMEDIATELY NOTIFIES</u> the SM/CRS <u>AND</u> the Duty RO, <u>AND</u> notes corrective action in the comments section.</p> <p>Examiner Note: Operator may perform Step 3.6.3 and include the T/S references. Declaring the instrument INOPERABLE is not critical.</p>		
CUE:	Repeat back message from Operator on Item 75 is below minimum.			
3.6.1	<u>IF</u> a work order is issued to repair an abnormal reading, <u>THEN NOTE</u> the work order number in the comment section.	Operator determines this step is N/A.		
3.6.2	<u>IF</u> an Action Statement Log Sheet is issued ...	Operator determines this step is N/A.		
3.6.3	<u>IF</u> a surveillance item is out-of-spec or not successfully completed, <u>THEN REFER</u> to Step 3.11 for T/S reference numbers and notes.	Operator refers to Step 3.11 <u>AND</u> determines applicable T/S reference numbers and notes for items 72 and 75.		
CUE:	Repeat back message from Operator on T/S numbers and notes.			
3.7	<u>IF</u> performing a channel check that requires a comparison between channels, <u>THEN RECORD</u> the difference between the high and low value and trip status.	<p>*Operator performs channel checks and records the differences between the high and low values and trip status.</p> <p>Examiner Note: IAW the Initiating Cue, only Items 62-75 of Attachment 1a Day Shift is required. Refer to Examiner's Copy for expected values. Values may not exactly match due to differences in the observed values. MAX DEVIATION readings are SAT if they are mathematically correct.</p>		

JPM NUMBER: ZZ062
REV NUMBER: 00

NAME: _____
DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)
CUE:	<u>WHEN</u> operator informs you the task is complete, <u>OR</u> the JPM has been terminated for other reasons, <u>THEN</u> : REPEAT BACK any message from the operator on the status of the JPM; then state " This JPM is complete "; <u>AND</u> RECORD the STOP TIME. STOP TIME: _____			
Task Standard: Operator completes required Daily Surveillance Log entries in accordance with HC.OP-DL.ZZ-0026.				

**OPERATOR TRAINING PROGRAM
EVALUATOR FOLLOWUP QUESTION DOCUMENTATION**

JPM NUMBER: ZZ062
REV NUMBER: 00

NAME: _____
DATE: _____

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

JOB PERFORMANCE MEASURE

JPM NUMBER: ZZ062

REVISION HISTORY

Rev #	Date	Description	Validation Required?
0	7/5/2018	Modified ZZ016.	Y

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM NUMBER: ZZ062

REV#: 00

TASK: Complete The Daily Surveillance Logs

- | | |
|--------------|---|
| <u> X </u> | 1. Task description and number, JPM description and number are identified. |
| <u> X </u> | 2. Knowledge and Abilities (K/A) is identified, and is: ≥ 3.0 (LOR); or ≥ 2.5 (ILT); or justification is provided. |
| <u> X </u> | 3. License level identified. (SRO,RO,STA,NLO) |
| <u> X </u> | 4. Performance location specified (In-Plant, Control Room, Simulator, or Classroom). |
| <u> X </u> | 5. Initial setup conditions are identified. |
| <u> X </u> | 6. Initiating and terminating cues are properly identified. |
| <u> X </u> | 7. Task standards for successful completion are identified. |
| <u> X </u> | 8. Critical steps meet the criteria for critical steps and are identified with an asterisk (*). Sequence Critical Steps are identified with a pound sign (#). |
| <u> X </u> | 9. JPM has multiple Critical Tasks, or justification of the basis for a single critical task. |
| <u> X </u> | 10. Procedure(s) referenced by this JPM match the most current revision of that procedure. |
| <u> X </u> | 11. Cues both verbal and visual are complete and correct. |
| <u> X </u> | 12. Performance standards are specific in exact control and indication nomenclature (switch position, meter reading) even if these criteria are not specified in the procedural step. |
| <u> X </u> | 13. Statements describing important actions or observations that should be made by the operator are included (if required.) |
| <u> X </u> | 14. Validation time is included. |
| <u> X </u> | 15. JPM is identified as Time Critical and includes Critical Time (if required). |

VALIDATED BY:

Qualification Level Required: RO

<u> ON FILE </u> Name	<u> RO </u> Qual	<u> ON FILE </u> Signature	<u> 7/5/2018 </u> Date
<u> ON FILE </u> Name	<u> RO </u> Qual	<u> ON FILE </u> Signature	<u> 7/5/2018 </u> Date

JOB PERFORMANCE MEASURE SIMULATOR SETUP INSTRUCTIONS

JPM NUMBER: ZZ062

REV#: 00

INITIAL CONDITIONS:

I.C.

<i>Initial</i>	
	INITIALIZE the simulator to 100% power, MOL.
	STABILIZE Xenon concentration.
	INSERT Malfunctions and Overrides.
	RUN simulator for approximately 15 minutes.
	PLACE the simulator in freeze. (Optional)

PREP FOR TRAINING (i.e., RM-11 set points, procedures, bezel covers)

<i>Initial</i>	Description
	PLACE picture of Main Screen and RWCU Delta-Flow on NUMAC 1SKXR-11497.
	ENSURE meter indications support expected values. Modification of Malfunctions and Remotes may be necessary.
	COMPLETE "Simulator Ready-for-Training/Examination Checklist".

EVENT FILE:

<i>Initial</i>	ET	
		Event code:
		Description:

MALFUNCTION SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description
	None	None	Insert malfunction RM9509 to 26.80000	9RX509, MSL 'A' - Main Steam Line Chan A
	None	None	Insert malfunction RM9510 to 27.50000	9RX510, MSL 'B' - Main Steam Line Chan B
	None	None	Insert malfunction RM9511 to 29.20000	9RX511, MSL 'C' - Main Steam Line Chan C
	None	None	Insert malfunction RM9512 to 30.40000	9RX512, MSL 'D' - Main Steam Line Chan D

JOB PERFORMANCE MEASURE

SIMULATOR SETUP INSTRUCTIONS

REMOTE SCHEDULE:

<i>Initial</i>	<i>@Time</i>	<i>Event</i>	<i>Action</i>	<i>Description</i>
	None	None	Insert override 12A5_L_AO to 0.395.	MASTER TRIP UNIT B21-N689A METER (MSL D FLOW HI) - C71A-Z1A (AO)

OVERRIDE SCHEDULE:

<i>Initial</i>	<i>@Time</i>	<i>Event</i>	<i>Action</i>	<i>Description</i>

JOB PERFORMANCE MEASURE

HC.OP-DL.ZZ-0026(Q)

EXAMINER'S COPY

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Surveillance Log - Control Room -Day Shift

Operational Condition 1

Date Today

ITEM	SURVEILLANCE	OPER COND	INST	PANEL 10C609				PANEL 10C611				INST DEVIATION	MAX DEVIATION	ACCEPTABLE LIMITS			INST TRIPPED YES/NO
				VALUE	INST	VALUE	INST	VALUE	INST	VALUE				MIN	NORM	MAX	
62@	RPV PRESSURE	1,2	N678A	1000	N678C	990	N678B	980	N678D	990	20	100	---	---	---	1037	NO
63@	DRYWELL PRESSURE	1,2,3 NOTE 29.	N650A	0.3	N650C	0.3	N650B	0.3	N650D	0.4	0.1	1	---	---	---	1.68	NO
64@	CONDENSER VACUUM	1,2,3	N675A	26.6	N675C	26	N675B	26	N675D	26.5	0.6	2.5	8.5	---	---	---	NO
65@	MSL PRESSURE	1	N676A	940	N676C	930	N676B	950	N676D	960	30.0	80	756	---	---	---	NO
66@	RPV LEVEL 3 (NOTE 27)	1,2,3,*	N680A	33	N680C	32	N680B	34	N680D	35	3.0	4	12.5	---	---	---	NO
67@	NORTH SDV LEVEL (NOTE 61)	1,2,5	N/A	N/A	N601C	0	N/A	N/A	N601D	0	0	10	---	---	---	72	NO
68@	SOUTH SDV LEVEL (NOTE 61)	1,2,5	N601A	0	N/A	N/A	N601B	0	N/A	N/A	0	10	---	---	---	72	NO
69@	MSL A FLOW	1,2,3	N686A	80	N686C	80	N686B	80	N686D	69	11.0	18	---	---	---	162.8	NO
70@	MSL B FLOW	1,2,3	N687A	79	N687C	75	N687B	69	N687D	79	10.0	18	---	---	---	162.8	NO
71@	MSL C FLOW	1,2,3	N688A	82	N688C	75	N688B	68	N688D	75	14.0	18	---	---	---	162.8	NO
72@	MSL D FLOW	1,2,3	N689A	105	N689C	75	N689B	80	N689D	76	30.0	18	---	---	---	162.8	NO
73@	RPV LEVEL 2 (NOTE 27.)	1,2,3,* NOTE 29	N681A	30	N681C	35	N681B	39	N681D	40	10.0	15	-38	---	---	---	NO
@	RPV LEVEL 1	1,2,3	N684A	N/A	N684C	N/A	N684B	N/A	N684D	N/A	N/A	N/A	-129	---	---	---	NO
74@	RWCU dF (NOTE 56,57)	1,2,3	XR11497	0	N/A	N/A	N/A	N/A	XR11499	0	0.0	20	---	---	---	56	NO
RM-11																	
75@	MSL RADIATION (NOTES 53,54)	1,2,3 NOTE 55	9RX509	27	9RX510	28	9RX511	29	9RX512	30	3.0	(NOTE 53)	---	---	---	3 X NORM	NO

NOTE: FOR ANY INSTRUMENT FOUND TRIPPED, PLACE A 'T' IN THE VALUE BLOCK ALONG WITH THE INSTRUMENT VALUE AND RECORD "YES" IN THE INST TRIPPED COLUMN. FOR NON-INDICATING TRIP UNITS, CIRCLE THE TRIP UNIT DESIGNATOR IN RED AND RECORD "YES" IN THE INST TRIPPED COLUMN.

NOTE 61: WHEN IN OPER COND 5 - WITH ANY CONTROL ROD WITHDRAWN. NOT APPLICABLE TO CONTROL RODS REMOVED PER SPECIFICATION 3.9.10.1 OR 3.9.10.2.

NOTE 27.: (*) - WHEN HANDLING RECENTLY IRRADIATED FUEL IN THE SECONDARY CONTAINMENT AND DURING OPERATIONS WITH A POTENTIAL FOR DRAINING THE REACTOR VESSEL.

NOTE 29.: ALSO REQUIRED WHEN SECONDARY CONTAINMENT IS REQUIRED TO BE IN EFFECT IAW T/S. [70021778]

NOTE 53: RM-11 10 MINUTE AVERAGE SHOULD BE USED TO OBTAIN CHANNEL VALUES. MSL RADIATION MAX DEVIATION WITH THE H2 INJECTION SYS OUT OF SERVICE IS 20. WITH THE H2 INJECTION SYS IN SERVICE, MAX DEVIATION CALCULATED BY ADDING OPERABLE CHANNEL VALUES, DIVIDING RESULT BY NUMBER OF OPERABLE CHANNELS, THEN MULTIPLYING RESULT BY (0.4). IF RM-11 UNAVAILABLE, K610A, K610B, K610C, OR K610D (NUMAC) SHOULD BE USED AT PANEL 10C635/10C636. NUMAC READINGS SHOULD BE TAKEN 3 - 4 SECONDS INTO THE CPU SELF-TEST (PRESS ANY ^ KEY; PRESS "ETC" ^ KEY; PRESS "DISPLAY TEST STATUS" ^ KEY) WHEN ARROW HAS BEEN AT THE "CPU MODULE" LOCATION FOR 3 - 4 SECONDS. TO RESTORE NUMAC DISPLAY (PRESS EXIT ^ KEY; PRESS ETC ^ KEY; PRESS DISPLAY OFF ^ KEY). [70001230]

NOTE 54: SEE NEXT PAGE

NOTE 55: DURING OPERATIONAL CONDITIONS 1 AND 2 WITH MECHANICAL VACUUM PUMP(S) IN-SERVICE AND ANY MAIN STEAM LINE NOT ISOLATED, THE MSL RADIATION CHANNEL CHECK BETWEEN THE ALPHA AND BRAVO CHANNELS (9RX509/9RX510, K610A/K610B) ALSO SATISFIES A MECHANICAL VACUUM PUMP TRIP INSTRUMENTATION CHANNEL CHECK IAW T/S 4.3.10.a.

NOTE 56: INITIATE NOTIFICATION WHEN DEVIATION BETWEEN CHANNELS A AND D REACHES 9 GPM TO ENSURE THAT THE PROBLEM CAUSING THE DEVIATION IS CORRECTED.

NOTE 57: IF LEAK DETECTION MONITOR INDICATES "<<<" FOR FLOW, ADD FOUR FLOW VALUES UNDER "NORM" COLUMN TO OBTAIN READING. (MAY RESULT IN NEGATIVE VALUE)

EXAMINER'S COPY

JOB PERFORMANCE MEASURE

HC.OP-DL.ZZ-0026(Q)

EXAMINER'S COPY

ATTACHMENT 1a
Surveillance Log - Control Room -Day Shift

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Operational Condition 1

Date Today

NOTE 54.: IF RM-11 IS AVAILABLE, AND, WHENEVER RX POWER IS ABOVE 94% RTP AND HAS BEEN CONSTANT FOR THE PREVIOUS 2 HOURS (NO TRANSIENT IN PROGRESS), PERFORM **MSL AVERAGE FULL POWER BACKGROUND CHECK** BELOW. FOR ANY VALUE OF $c < 0.834$, DECLARE THE CORRESPONDING MSLRMS INOPERABLE. IF ANY VALUE FOR c IS < 0.85 OR > 1.2 (+ 20%) THEN A RE-EVALUATION OF THE 3X NORMAL SETPOINT MAY BE DESIRED USING HC.SE-GP.SP-0001(Q). NOTIFY RMS SYSTEM ENGINEER FOR SUPPORT IN RE-EVALUATION. KEEP IN MIND THAT THIS CHECK IS ONLY VALID WHEN RX POWER IS ABOVE 94%, AND CONSTANT FOR THE PREVIOUS 2 HOURS (NO TRANSIENT IN PROGRESS).

MSL AVERAGE FULL POWER BACKGROUND CHECK		MIN	MSLRMS A	MSLRMS B	MSLRMS C	MSLRMS D
a	RM-11 LAST HOURLY AVERAGE		27	28	29	30
b	RM-11 HI SETPOINT		98.8	96.0	93.6	101
c	$c = a / b \times 3$ (RATIO OF ACTUAL TO BASELINE AFPB)	0.850	0.820 2	0.875	0.929	0.891

1 **Item 72, MSL D FLOW exceeds max deviation.**

2 **Item 75, MSL RMS A less than minimum Full Power Background Check.**

EXAMINER NOTE: Operator may red circle and place comment number over 9RX509 reading in Item 75 in addition to, or instead of, NOTE 54. Operator may include comments on Page 20 instead of on this page.

EXAMINER'S COPY

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. The plant recently completed a startup to 100% power from a refueling outage.
2. The plant has been at 100% power since yesterday at 0300.

INITIATING CUE:

COMPLETE the **Day Shift** daily Surveillance Logs for 10C609, 10C611, AND MSL Radiation (Items 62-75 of Attachment 1a) in accordance with HC.OP-DL.ZZ-0026.

JOB PERFORMANCE MEASURE

HC.OP-DL.ZZ-0026(Q)

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Surveillance Log - Control Room -Day Shift

Operational Condition _____

Date _____

ITEM	SURVEILLANCE	OPER COND	INST	PANEL 10C609				PANEL 10C611				INST DEVIATION	MAX DEVIATION	ACCEPTABLE LIMITS			INST TRIPPED YES/NO
				VALUE	INST	VALUE	INST	VALUE	INST	VALUE	INST			MIN	NORM	MAX	
62@	RPV PRESSURE	1,2	N678A		N678C		N678B		N678D				100	---		1037	
63@	DRYWELL PRESSURE	1,2,3 NOTE 29.	N650A		N650C		N650B		N650D				1	---	---	1.68	
64@	CONDENSER VACUUM	1,2,3	N675A		N675C		N675B		N675D				2.5	8.5	---	---	
65@	MSL PRESSURE	1	N676A		N676C		N676B		N676D				80	756	---	---	
66@	RPV LEVEL 3 (NOTE 27)	1,2,3,*	N680A		N680C		N680B		N680D				4	12.5	---	---	
67@	NORTH SDV LEVEL (NOTE 61)	1,2,5	N/A	N/A	N601C		N/A	N/A	N601D				10	---	---	72	
68@	SOUTH SDV LEVEL (NOTE 61)	1,2,5	N601A		N/A	N/A	N601B		N/A	N/A			10	---	---	72	
69@	MSL A FLOW	1,2,3	N686A		N686C		N686B		N686D				18	---	---	162.8	
70@	MSL B FLOW	1,2,3	N687A		N687C		N687B		N687D				18	---	---	162.8	
71@	MSL C FLOW	1,2,3	N688A		N688C		N688B		N688D				18	---	---	162.8	
72@	MSL D FLOW	1,2,3	N689A		N689C		N689B		N689D				18	---	---	162.8	
73@	RPV LEVEL 2 (NOTE 27.)	1,2,3,* NOTE 29	N681A		N681C		N681B		N681D				15	-38	---	---	
@	RPV LEVEL 1	1,2,3	N684A	N/A	N684C	N/A	N684B	N/A	N684D	N/A	N/A	N/A	N/A	-129	---	---	
74@	RWCU dF (NOTE 56,57)	1,2,3	XR11497		N/A	N/A	N/A	N/A	XR11499				20	---	---	56	
RM-11																	
75@	MSL RADIATION (NOTES 53,54)	1,2,3 NOTE 55	9RX509		9RX510		9RX511		9RX512				(NOTE 53)	---	---	3 X NORM	

NOTE: FOR ANY INSTRUMENT FOUND TRIPPED, PLACE A 'T' IN THE VALUE BLOCK ALONG WITH THE INSTRUMENT VALUE AND RECORD "YES" IN THE INST TRIPPED COLUMN.
FOR NON-INDICATING TRIP UNITS, CIRCLE THE TRIP UNIT DESIGNATOR IN RED AND RECORD "YES" IN THE INST TRIPPED COLUMN.

NOTE 61: WHEN IN OPER COND 5 – WITH ANY CONTROL ROD WITHDRAWN. NOT APPLICABLE TO CONTROL RODS REMOVED PER SPECIFICATION 3.9.10.1 OR 3.9.10.2.

NOTE 27.: (*) - WHEN HANDLING RECENTLY IRRADIATED FUEL IN THE SECONDARY CONTAINMENT AND DURING OPERATIONS WITH A POTENTIAL FOR DRAINING THE REACTOR VESSEL.

NOTE 29.: ALSO REQUIRED WHEN SECONDARY CONTAINMENT IS REQUIRED TO BE IN EFFECT IAW T/S. [70021778]

NOTE 53: RM-11 10 MINUTE AVERAGE SHOULD BE USED TO OBTAIN CHANNEL VALUES. MSL RADIATION MAX DEVIATION WITH THE H2 INJECTION SYS OUT OF SERVICE IS 20. WITH THE H2 INJECTION SYS IN SERVICE, MAX DEVIATION CALCULATED BY ADDING OPERABLE CHANNEL VALUES, DIVIDING RESULT BY NUMBER OF OPERABLE CHANNELS, THEN MULTIPLYING RESULT BY (0.4). IF RM-11 UNAVAILABLE, K610A, K610B, K610C, OR K610D (NUMAC) SHOULD BE USED AT PANEL 10C635/10C636. NUMAC READINGS SHOULD BE TAKEN 3 - 4 SECONDS INTO THE CPU SELF-TEST
(PRESS ANY ▲ KEY; PRESS "ETC" ▲ KEY; PRESS "DISPLAY TEST STATUS" ▲ KEY) WHEN ARROW HAS BEEN AT THE "CPU MODULE" LOCATION FOR 3 - 4 SECONDS. TO RESTORE NUMAC DISPLAY (PRESS EXIT ▲ KEY; PRESS ETC ▲ KEY; PRESS DISPLAY OFF ▲ KEY). [70001230]

NOTE 54: SEE NEXT PAGE

NOTE 55: DURING OPERATIONAL CONDITIONS 1 AND 2 WITH MECHANICAL VACUUM PUMP(S) IN-SERVICE AND ANY MAIN STEAM LINE NOT ISOLATED, THE MSL RADIATION CHANNEL CHECK BETWEEN THE ALPHA AND BRAVO CHANNELS (9RX509/9RX510, K610A/K610B) ALSO SATISFIES A MECHANICAL VACUUM PUMP TRIP INSTRUMENTATION CHANNEL CHECK IAW T/S 4.3.10.a.

NOTE 56: INITIATE NOTIFICATION WHEN DEVIATION BETWEEN CHANNELS A AND D REACHES 9 GPM TO ENSURE THAT THE PROBLEM CAUSING THE DEVIATION IS CORRECTED.

NOTE 57: IF LEAK DETECTION MONITOR INDICATES "<<<" FOR FLOW, ADD FOUR FLOW VALUES UNDER "NORM" COLUMN TO OBTAIN READING. (MAY RESULT IN NEGATIVE VALUE)

JOB PERFORMANCE MEASURE

HC.OP-DL.ZZ-0026(Q)

ATTACHMENT 1a Surveillance Log - Control Room -Day Shift

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Operational Condition _____

Date _____

NOTE 54.: IF RM-11 IS AVAILABLE, AND, WHENEVER RX POWER IS ABOVE 94% RTP AND HAS BEEN CONSTANT FOR THE PREVIOUS 2 HOURS (NO TRANSIENT IN PROGRESS), PERFORM **MSL AVERAGE FULL POWER BACKGROUND CHECK** BELOW. FOR ANY VALUE OF $c < 0.834$, DECLARE THE CORRESPONDING MSLRMS INOPERABLE. IF ANY VALUE FOR c IS < 0.85 OR > 1.2 ($\pm 20\%$) THEN A RE-EVALUATION OF THE 3X NORMAL SETPOINT MAY BE DESIRED USING HC.SE-GP.SP-0001(Q). NOTIFY RMS SYSTEM ENGINEER FOR SUPPORT IN RE-EVALUATION. KEEP IN MIND THAT THIS CHECK IS ONLY VALID WHEN RX POWER IS ABOVE 94%, AND CONSTANT FOR THE PREVIOUS 2 HOURS (NO TRANSIENT IN PROGRESS).

MSL AVERAGE FULL POWER BACKGROUND CHECK		MIN	MSLRMS A	MSLRMS B	MSLRMS C	MSLRMS D
a	RM-11 LAST HOURLY AVERAGE					
b	RM-11 HI SETPOINT					
c	$c = a / b \times 3$ (RATIO OF ACTUAL TO BASELINE AFPB)	0.850				

JOB PERFORMANCE MEASURE

HC.OP-DL.ZZ-0026(Q)

ATTACHMENT 1a Surveillance Log - Control Room

Page 20 of 20

Operational Condition _____

Date _____

78 PERFORM THE INDICATED SURVEILLANCE FOR THE APPLICABLE DAY, WHICH BEGINS AT 0700

SATURDAY

N/A / N/A

1. PERFORM HC.OP-ST.GS-0001(Q)
APPLICABLE IN OPERATIONAL CONDITION 1. T/S 4.6.6-2

INITIAL / TIME

SUNDAY

N/A / N/A

1. PERFORM HC.OP-ST.ZZ-0001(Q)
APPLICABLE IN ALL OPERATIONAL CONDITIONS. T/S 4.8.1.1.1.a, 4.8.3.1, 4.8.3.2, 4.8.1.2

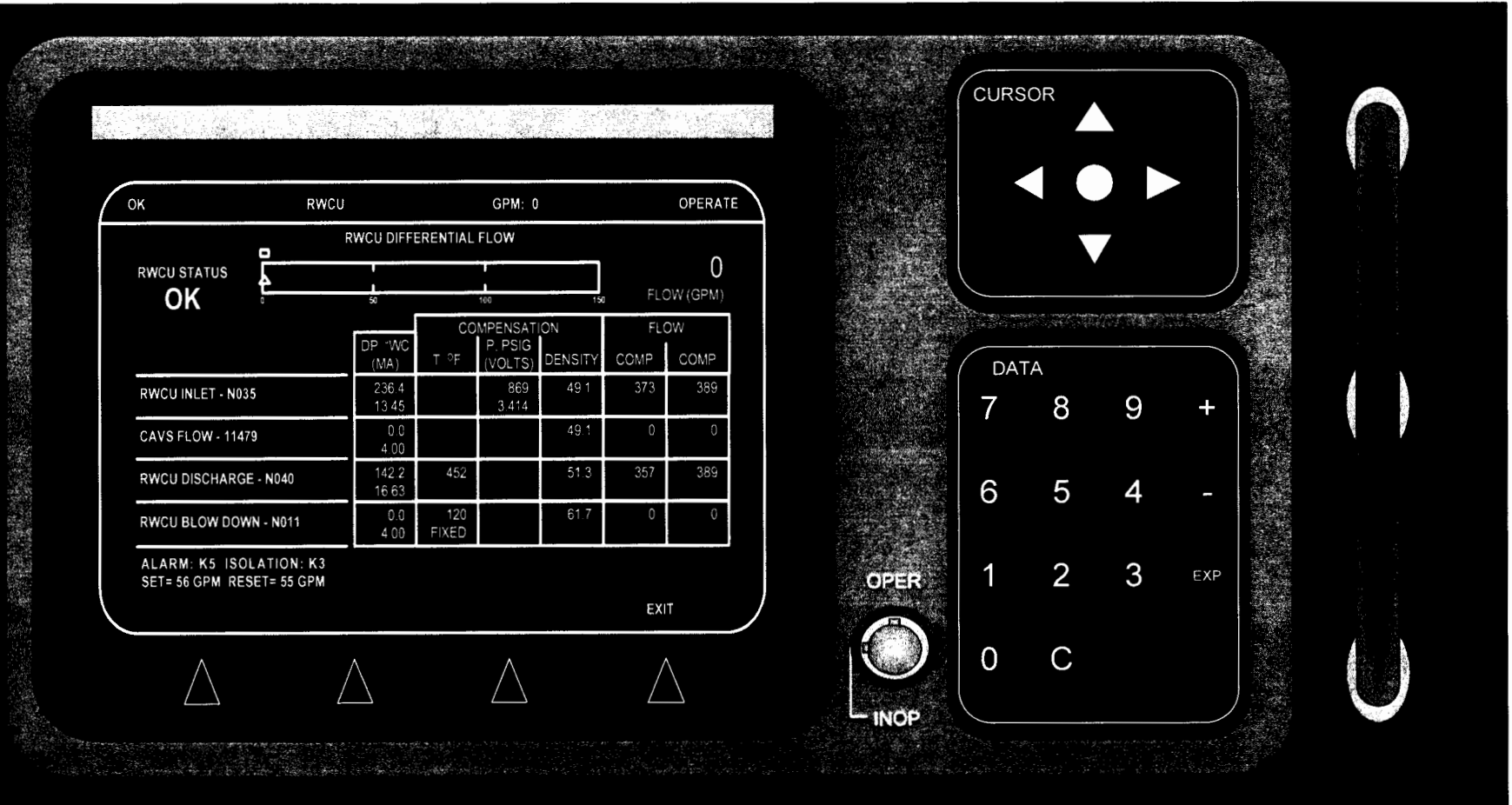
N/A / N/A

2. VERIFY THE FRVS WATER SEAL BUCKET TRAPS (8) (6 RECIRC UNITS - 2 VENT UNITS)
ARE FILLED TO THE OVERFLOW LEVEL.
APPLICABLE IN ALL OPERATIONAL CONDITIONS. T/S 4.6.5.3.1.a, 4.6.5.3.2.a

INITIAL / TIME

COMMENTS:

JOB PERFORMANCE MEASURE



1SKXR-11497

JOB PERFORMANCE MEASURE

STATION: Hope Creek

2018 JG NRC
RO A3

Copy _____ of _____

SYSTEM: Administrative

TASK NUMBER: 2990400102

TASK: Ensure Plant Operation Is In Compliance With Technical Specifications

JPM NUMBER: 305H-JPM.ZZ063

REVISION: 00

SAP BET: NOH05JPZZ63E

K/A NUMBER: 2.2.12 Knowledge of surveillance procedures.

IMPORTANCE FACTOR: RO: 3.0 SRO: 3.4

ALTERNATE PATH: ☐

APPLICABILITY: RO ☒

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: HC.OP-ST.ZZ-0001, Rev. 37

E-0001-0, Rev. 24

TOOLS, AND EQUIPMENT: Drawing E-0001-0

ESTIMATED COMPLETION TIME: 15 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A Minutes

JPM PERFORMED BY: _____

GRADE: SAT ☐ UNSAT ☐

ACTUAL COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION TIME: N/A Minutes

REASON IF UNSATISFACTORY:

EVALUATOR: _____
Signature

DATE: _____

JOB PERFORMANCE MEASURE

SYSTEM: Administrative

TASK NUMBER: 2990400102

TASK: Ensure Plant Operation Is In Compliance With Technical Specifications

INITIAL CONDIITONS:

1. T-1 Station Power Transformer was cleared and tagged for maintenance. 1T60 and 1T30 are open.
2. Emergency Diesel Generator B developed a small Lube Oil leak and was just declared inoperable. Clearance paperwork is being prepared. Time to complete repairs and retest is expected to be completed within 4 hours.
3. The Red Lion Offsite Power Source was just lost.
4. HC.OP-ST.ZZ-0001, Power Distribution Lineup-Weekly, is required to be performed to satisfy Technical Specification Surveillance requirement 4.8.1.1.1.a.

INITIATING CUE:

PERFORM HC.OP-ST.ZZ-0001, POWER DISTRIBUTION LINEUP – WEEKLY to satisfy Technical Specification 4.8.1.1.1.a only.

JPM NUMBER: ZZ063
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	STANDARD (*Critical Step) (#Sequential Step)	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
CUE:	PROVIDE the operator the initiating cue; a marked up HC.OP-ST.ZZ-0001; AND ENTER START TIME AFTER Operator repeats back the Initiating Cue. START TIME: _____			
	Operator reviews precautions and limitations.	Operator reviews precautions and limitations.		
CUE:	IF excessive time is taken reviewing precautions and limitations, THEN INFORM operator that all are satisfied.			
	Operator determines beginning step of the procedure.	Operator determines correct beginning step to be 5.1.		
5.1	LOG test start time in the Control Room log(s).	Operator requests test to be logged in the Control Room log.		
CUE:	Respond that the test has been logged.			
5.2	ENSURE that all prerequisites have been satisfied IAW Section 2.0 of this procedure.	Operator ensures that all prerequisites have been satisfied IAW Section 2.0 of this procedure, and initials each.		
5.3	ENSURE Attachment 1, Section 1.0 of the SM/CRS Data and Signature Sheet has been completed and Regular Surveillance or Retest is indicated.	Operator ensures that Attachment 1, Section 1.0 of the SM/CRS Data and Signature Sheet has been completed and Regular Surveillance or Retest is indicated, and initials Step.		

JPM NUMBER: ZZ063
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	STANDARD (*Critical Step) (#Sequential Step)	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
NOTE	<p>Correct voltages (not including 4.16KV 1E Bus voltages) may be checked by local or remote indication, CRIDS, and/or proper equipment operation. 4.16KV 1E Bus voltages may only be checked with CRIDS or FLUKE measurements IAW</p> <p>HC.OP-SO.MC-0001. Alternate CRIDS point(s) may be used for 4.16KV 1E Bus voltages as defined in note associated with 4.16KV 1E Bus Voltage Readings.</p> <p>250 VDC need not be performed when HPCI and/or RCIC are not required to be operable (i.e., condition 4 and 5).</p> <p>Only 2 channels may be required in Condition 4 or 5 (T/S 3.8.2.2 and 3.8.3.2)</p>	Operator reads and initials NOTE.		
5.4	<p>IF performing this procedure to satisfy T/S Surveillance 4.8.1.1.1.a ONLY, PERFORM the following sections: [T/S 4.8.1.1.1.a]</p> <ul style="list-style-type: none"> 4.16KV SWITCHGEAR 10A 4.16KV SWITCHGEAR 10A402401 4.16KV SWITCHGEAR 10A403 4.16KV SWITCHGEAR 10A404 OFFSITE TO ONSITE DISTRIBUTION 	<p>*Operator notes that only the following sections are to be performed:</p> <ul style="list-style-type: none"> 4.16KV SWITCHGEAR 10A 4.16KV SWITCHGEAR 10A402401 4.16KV SWITCHGEAR 10A403 4.16KV SWITCHGEAR 10A404 OFFSITE TO ONSITE DISTRIBUTION <p>and initials each section when complete.</p>		
5.4.1	When in an extended outage for A or B EDG, PERFORM the following: [CM-HC-2011-0816, CM-HC-2011-0818]...	Operator observes that this Step is marked as N/A.		

JPM NUMBER: ZZ063
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	STANDARD (*Critical Step) (#Sequential Step)	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
NOTE	The line-up provided in Attachment 2 verifies that the Class 1E electrical distribution is aligned IAW Technical Specification requirements. Indications other than those provided in Attachment 2 may be utilized to verify the required line-up. This may be necessary due to maintenance, abnormal line-ups, etc.	Operator reads and initials NOTE.		
5.5	PERFORM Power Distribution Lineup by completing Attachment 2.	*Operator completes Attachment 2. Examiner Note: Refer to Examiner's Copy of Attachment 2.		
	<p>+ NOTE: The above alignment represents the normal lineup of the 500Kv/13.8Kv Switchyards. Deviations may exist while still maintaining two independent offsite power source separation. IF actual alignment deviates from the above, CONSULT Electrical Drawing E-0001-0 to determine if proper separation exists, and IAW the following criteria: 500Kv Bus Sections 1 & 2 energized by two offsite sources (Red Lion 5015, New Freedom 5023, or Salem X-Tie 5037).</p> <p>Two feeds (10X and 20X) into a split 13.8Kv Yard, with each feed supplying power to an energized separate Station Service Transformer (AX501 and BX501). An independent offsite feed is considered available to the safety related distribution system IF all four of the 1E infeed breakers are OPERABLE. IF less than 4 breakers are OPERABLE, CONSIDER the offsite feed inoperable and comply with ACTION 3.8.1.1 as appropriate.</p>	<p>The operator determines that the breaker positions noted in the OFFSITE TO ONSITE DISTRIBUTION section of Attachment 2 do not match the required positions.</p> <p>Operator reads + NOTE.</p> <p>*Operator determines that the lineup is satisfactory based on the guidance in the +NOTE and enters SAT for the Switchyard EQUIPMENT.</p>		

JPM NUMBER: ZZ063
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	STANDARD (*Critical Step) (#Sequential Step)	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
5.6	<u>IF</u> any indication not specified in Attachment 2 was used to satisfy this surveillance <u>THEN</u> DOCUMENT AND JUSTIFY its use in Section 2.1.4 of Attachment 1.	Operator determines that this step is N/A. Examiner Note: Operator may decide to note in Section 2.1.4 the bases for justification of determining that 2 INDEPENDENT OFFSITE SOURCES are SAT.		
5.7	<u>IF</u> Required, RECORD M&TE identification numbers and calibration ...	Operator determines that this step is N/A.		
5.8	LOG test end time in Control Room log(s).	Operator requests that this test's end time be logged in the Control Room log, and initials Step.		
CUE:	Respond that the test has been logged.			
5.9	SUBMIT this procedure to the SM/CRS for review <u>AND</u> completion of Attachment 1.	Operator submits the surveillance to the SM/CRS for review.		
CUE:	<u>WHEN</u> operator informs you the task is complete, <u>OR</u> the JPM has been terminated for other reasons, <u>THEN</u> RECORD the STOP TIME. REPEAT BACK any message from the operator on the status of the JPM, and then state "This JPM is complete" . STOP TIME: _____			
Task Standard: Operator performs the required sections of HC.OP-ST.ZZ-0001.				

@Comments regarding any identified trainee failure to adhere to Operator Fundamentals of SER 3-05, Weaknesses in Operator Fundamentals, shall be noted in the comments. [IER L1-11-3 Rec. 3b]

OPERATOR TRAINING PROGRAM

EVALUATOR FOLLOWUP QUESTION DOCUMENTATION

JPM NUMBER: ZZ063
REV NUMBER: 00

NAME: _____
DATE: _____

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

JOB PERFORMANCE MEASURE

JPM NUMBER: ZZ063

REVISION HISTORY

Rev #	Date	Description	Validation Required?
00	7/5/2018	Modified ZZ024.	Y

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM NUMBER: ZZ063

REV#: 00

TASK: Ensure Plant Operation Is In Compliance With Technical Specifications

- | | |
|--------------|---|
| <u> X </u> | 1. Task description and number, JPM description and number are identified. |
| <u> X </u> | 2. Knowledge and Abilities (K/A) is identified, and is: ≥ 3.0 (LOR); or ≥ 2.5 (ILT); or justification is provided. |
| <u> X </u> | 3. License level identified. (SRO,RO,STA,NLO) |
| <u> X </u> | 4. Performance location specified (In-Plant, Control Room, Simulator, or Classroom). |
| <u> X </u> | 5. Initial setup conditions are identified. |
| <u> X </u> | 6. Initiating and terminating cues are properly identified. |
| <u> X </u> | 7. Task standards for successful completion are identified. |
| <u> X </u> | 8. Critical steps meet the criteria for critical steps and are identified with an asterisk (*). Sequence Critical Steps are identified with a pound sign (#). |
| <u> X </u> | 9. JPM has multiple Critical Tasks, or justification of the basis for a single critical task. |
| <u> X </u> | 10. Procedure(s) referenced by this JPM match the most current revision of that procedure. |
| <u> X </u> | 11. Cues both verbal and visual are complete and correct. |
| <u> X </u> | 12. Performance standards are specific in exact control and indication nomenclature (switch position, meter reading) even if these criteria are not specified in the procedural step. |
| <u> X </u> | 13. Statements describing important actions or observations that should be made by the operator are included (if required.) |
| <u> X </u> | 14. Validation time is included. |
| <u> X </u> | 15. JPM is identified as Time Critical and includes Critical Time (if required). |

VALIDATED BY:

Qualification Level Required: RO

<u> ON FILE </u> Name	<u> RO </u> Qual	<u> ON FILE </u> Signature	<u> 7/5/2018 </u> Date
<u> ON FILE </u> Name	<u> RO </u> Qual	<u> ON FILE </u> Signature	<u> 7/5/2018 </u> Date

JOB PERFORMANCE MEASURE

JPM NUMBER: ZZ063

REV#: 00

INITIAL CONDITIONS:

I.C.

Initial	
---------	--

INITIALIZE to any 100% power IC.

OPEN BS3-4 and BS1-3 500 KV Breakers. OR INSERT Malfunction ED22, Loss of 5015 Line and acknowledge alarms.

ACKNOWLEDGE alarms.

INSERT Overrides

PLACE Simulator in FREEZE.

SAVE IC files including CRIDS CVT File.

MODIFY CRIDS CVT.txt file as follows:

CRIDS Point	Value
A3291	0
D2645	0
D2647	1 19e04800
D2653	0
D2655	1 19e04800
D2558	0
D5806	0

RESET Simulator to saved IC. **DO NOT** place the Simulator in RUN.

PREP FOR TRAINING (i.e., RM-11 set points, procedures, bezel covers)

Initial	Description
---------	-------------

MARKUP Section 1 for Regular Surveillance and 4.8.1.1.1.a ONLY. N/A Step 5.4.1.

PLACE Red Bezel covers on 1T60, and BS1-3.

COMPLETE "Simulator Ready-for-Training/Examination Checklist".

JOB PERFORMANCE MEASURE

EVENT FILE:

<i>Initial</i>	ET	
		Event code:
		Description:

MALFUNCTION SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description

REMOTE SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description

OVERRIDE SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description
	None	None	Insert override 1A46_E_LO to Off	BS6-7 CLOSE-13.8KV BUS (LO)
	None	None	Insert override 1A46_F_LO to On	BS6-7 TRIP-13.8KV BUS (LO)
	None	None	Insert override 1A313_E_LO to On	BS7-8 CLOSE (LO)
	None	None	Insert override 1A313_F_LO to Off	BS7-8 TRIP (LO)
	None	None	Insert override 1A26_E_LO to Off	BS1-2 CLOSE (LO)
	None	None	Insert override 1A26_F_LO to On	BS1-2 TRIP (LO)
	None	None	Insert override 1A27_E_LO to On	BS2-3 CLOSE-13.8 KV BUS (LO)
	None	None	Insert override 1A27_F_LO to Off	BS2-3 TRIP-13.8 KV BUS (LO)
	None	None	Insert override 1A25_E_LO to Off	1T60 CLOSE (LO)
	None	None	Insert override 1A25_F_LO to On	1T60 OPEN (LO)

JOB PERFORMANCE MEASURE

HC.OP-ST.ZZ-0001(Q)

EXAMINER'S COPY

ATTACHMENT 2 INPLANT DATA SHEET POWER DISTRIBUTION LINEUP - WEEKLY Page 6 of 33

1.0 Power Distribution Lineup (Continued)

EQUIPMENT	NOMENCLATURE	REQUIRED	ACTUAL	SAT/ UNSAT	PERF
CHANNEL A	4.16KV SWGR 10A401				
40101	ALTERNATE FEEDER BKR TO 10A401	OPEN	OPEN	SAT	INIT
40108	NORMAL FEEDER BKR TO BUS 10A401	CLOSED	CLOSED	SAT	INIT
40107	EDG AG400 OUTPUT BKR TO 10A401	OPEN	OPEN	SAT	INIT
40103	10A401 FEED TO 10B450	CLOSED	CLOSED	SAT	INIT
40110	10A401 FEED TO 10B410	CLOSED	CLOSED	SAT	INIT
IF IN A NORMAL BUS ALIGNMENT [(2) 4.16 KV CLASS 1E BUSES AND (1) 4.16 KV NON-1E BUS ON EACH STATION SERVICE TRANSFORMER (SST) (1AX501, 1BX501)] WITH TAP CHANGER IN AUTO, RECORD THE FOLLOWING READING (USE CRIDS AS PRIMARY INDICATION (FLUKE SECONDARY)) (NOTES 2, 3, 4, & 6)					
4.16 KV Bus 10A401 Voltage	CIRCLE ONE: CRIDS (A7061) Fluke (Model 45)	4173 - 4370 119.09 - 125.0	4287	SAT	INIT
IF IN AN ABNORMAL BUS ALIGNMENT [ANY CONFIGURATION OTHER THAN NORMAL ALIGNMENT] (NOTES 2, 3, 4, & 6)					
4.16 KV Bus 10A401 Voltage	CIRCLE ONE: CRIDS (A7061) Fluke (Model 45)	4276 - 4370 122.03 - 125.0		N/A	

* The asterisk indicates Acceptance Criteria - in order to satisfy the requirements of the acceptance criteria, the SAT/UNSAT block must be marked SAT.

- (2) Voltage outside MIN/MAX may be indicative of a malfunctioning Transformer Load Tap Changer when in automatic. COMPARE Bus Voltage with Station Service Transformer Sec. Voltage. IF Bus Voltage is outside the MIN/MAX take Manual control of Load Tap Changer and ADJUST until voltage is within range. Voltage > MAX with Load Tap Changer on 1 position is normal during certain conditions (i.e., High voltage and/or no loads on bus). (NOTE: If in a normal bus alignment with tap changer in manual and voltage remains within established limits, tap changer should be returned to AUTO. (Refer to the appropriate CRIDS point for the Station Service Transformer Sec. Voltage). [70038637]
- (3) Instructions on the use of a Fluke (Model 45) to obtain Bus Voltage Values can be found in HC-OP-SO-MC-0001(Z); Fluke (Model 45) Hookup and Voltage Readings at PT Secondary.
- (4) IF Bus Voltage cannot be adjusted \geq MIN, DECLARE the respective offsite circuit of the A.C. electrical power source INOP AND ENTER T/S 3.6.1.1.a Action Statement.
IF Bus Voltage cannot be adjusted \leq MAX, GENERATE notification to Hope Creek Electrical I&C System Engineering documenting each voltage operating limit violation (start & stop times) so that 4.16 KV System Engineer can track and analyze voltage levels. IAW Notification 20184742. [70038770]
- (6) 4.16 KV Buses supplied from a common Station Service Transformer (1AX501, 1BX501) have the same voltage and associated CRIDS points should read the same discounting instrument loop inaccuracies. If in normal bus alignment, any of the following CRIDS points are considered equivalent and may be substituted for any other if one or more is a failed indicator. (For 1AX501: A3209, A3484, A7061, A7066). (For 1BX501: A3210, A3487, A7076, A7071).

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ATTACHMENT 2 INPLANT DATA SHEET POWER DISTRIBUTION LINEUP - WEEKLY Page 9 of 33

1.0 Power Distribution Lineup (Continued)

EQUIPMENT	NOMENCLATURE	REQUIRED	ACTUAL	SAT/ UNSAT	PERF
CHANNEL C	4.16KV SWGR 10A403				
40301	ALTERNATE FEEDER BKR TO 10A403	OPEN	OPEN	SAT	INIT
40308	NORMAL FEEDER BKR TO 10A403	CLOSED	CLOSED	SAT	INIT
40307	EDG CG400 OUTPUT BKR TO 10A403	OPEN	OPEN	SAT	INIT
40303	10A403 FEED TO 10B470	CLOSED	CLOSED	SAT	INIT
40310	10A403 FEED TO 10B430	CLOSED	CLOSED	SAT	INIT
IF IN A NORMAL BUS ALIGNMENT [(2) 4.16 KV CLASS 1E BUSES AND (1) 4.16 KV NON-1E BUS ON EACH STATION SERVICE TRANSFORMER (SST) (1AX501, 1BX501)] WITH TAP CHANGER IN AUTO, RECORD THE FOLLOWING READING (USE CRIDS AS PRIMARY INDICATION (FLUKE SECONDARY)) (NOTES 2,3,4,&6)					
4.16 KV Bus 10A403 Voltage	CIRCLE ONE: CRIDS (A7066) Fluke (Model 45)	4173 - 4370 119.09 - 125.0	4287	SAT	INIT
IF IN AN ABNORMAL BUS ALIGNMENT [ANY CONFIGURATION OTHER THAN NORMAL ALIGNMENT] (NOTES 2, 3, 4, & 6)					
4.16 KV Bus 10A403 Voltage	CIRCLE ONE: CRIDS (A7066) Fluke (Model 45)	4276 - 4370 122.03 - 125.0		N/A	

- * The asterisk indicates Acceptance Criteria - in order to satisfy the requirements of the acceptance criteria, the SAT/UNSAT block must be marked SAT.
- (2) Voltage outside MIN/MAX may be indicative of a malfunctioning Transformer Load Tap Changer when in automatic. **COMPARE** Bus Voltage with Station Service Transformer Sec. Voltage. **IF** Bus Voltage is outside the MIN/MAX take Manual control of Load Tap Changer and **ADJUST** until voltage is within range. Voltage > MAX with Load Tap Changer on 1 position is normal during certain conditions (i.e., High voltage and/or no loads on bus). (NOTE: If in a normal bus alignment with tap changer in manual and voltage remains within established limits, tap changer should be returned to AUTO. (Refer to the appropriate CRIDS point for the Station Service Transformer Sec. Voltage). [70038637]
- (3) Instructions on the use of a Fluke (Model 45) to obtain Bus Voltage Values can be found in HC.OP-SO.MC-0001(Z). Fluke (Model 45) Hookup and Voltage Readings at PT Secondary.
- (4) **IF** Bus Voltage cannot be adjusted \geq MIN, **DECLARE** the respective offsite circuit of the A.C. electrical power source INOP **AND ENTER** T/S 3.E.1.1.a Action Statement.
IF Bus Voltage cannot be adjusted \leq MAX, **GENERATE** notification to Hope Creek Electrical / I&C System Engineering documenting each voltage operating limit violation (start & stop times) so that 4.16 KV System Engineer can track and analyze voltage levels. IAW Notification 20184742 [70038770]
- (6) 4.16 KV Buses supplied from a common Station Service Transformer (1AX501, 1BX501) have the same voltage and associated CRIDS points should read the same discounting instrument loop inaccuracies. If in normal bus alignment, any of the following CRIDS points are considered equivalent and may be substituted for any other if one or more is a failed indicator. (For 1AX501: A3209, A3484, A7061, A7066; (For 1BX501: A3210, A3487, A7076, A7071).

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ATTACHMENT 2 INPLANT DATA SHEET POWER DISTRIBUTION LINEUP - WEEKLY Page 12 of 33

1.0 Power Distribution Lineup (Continued)

EQUIPMENT	NOMENCLATURE	REQUIRED	ACTUAL	SAT/ UNSAT	PERF
CHANNEL B	4.16KV SWGR 10A402				
40201	NORMAL FEEDER BKR TO 10A402	CLOSED	CLOSED	SAT	INIT
40208	ALTERNATE FEEDER BKR TO 10A402	OPEN	OPEN	SAT	INIT
40207	EDG BG400 OUTPUT BKR TO 10A402	OPEN	OPEN	SAT	INIT
40203	10A402 FEED TO 10B460	CLOSED	CLOSED	SAT	INIT
40210	10A402 FEED TO 10B420	CLOSED	CLOSED	SAT	INIT
IF IN A NORMAL BUS ALIGNMENT [(2) 4.16 KV CLASS 1E BUSES AND (1) 4.16 KV NON-1E BUS ON EACH STATION SERVICE TRANSFORMER (SST) (1AX501, 1BX501)] WITH TAP CHANGER IN AUTO. RECORD THE FOLLOWING READING (USE CRIDS AS PRIMARY INDICATION (FLUKE SECONDARY)) (NOTES 2,3,4,&6)					
4.16 KV Bus 10A402 Voltage	CIRCLE ONE: CRIDS (A7076) Fluke (Model 45)	4173 - 4370 116.00 - 125.0	4283	SAT	INIT
IF IN AN ABNORMAL BUS ALIGNMENT [ANY CONFIGURATION OTHER THAN NORMAL ALIGNMENT] (NOTES 2, 3, 4, & 6)					
4.16 KV Bus 10A402 Voltage	CIRCLE ONE: CRIDS (A7076) Fluke (Model 45)	4276 - 4370 122.03 - 125.0		N/A	

- * The asterisk indicates Acceptance Criteria - in order to satisfy the requirements of the acceptance criteria, the SAT/UNSAT block must be marked SAT
- (2) Voltage outside MIN/MAX may be indicative of a malfunctioning Transformer Load Tap Changer when in automatic. COMPARE Bus Voltage with Station Service Transformer Sec. Voltage. IF Bus Voltage is outside the MIN/MAX take Manual control of Load Tap Changer and ADJUST until voltage is within range. Voltage > MAX with Load Tap Changer on 1 position is normal during certain conditions (i.e., High voltage and/or no loads on bus.) (NOTE: If in a normal bus alignment with tap changer in manual and voltage remains within established limits, tap changer should be returned to AUTO. (Refer to the appropriate CRIDS point for the Station Service Transformer Sec. Voltage). [70038637]
- (3) Instructions on the use of a Fluke (Model 45) to obtain Bus Voltage Values can be found in HC.OP-SO-MC-0001,Z; Fluke (Model 45) Hookup and Voltage Readings at PT Secondary
- (4) IF Bus Voltage cannot be adjusted \geq MIN, DECLARE the respective offsite circuit of the A.C. electrical power source INOP AND ENTER T/S 3.8.1.1 as Action Statement.
IF Bus Voltage cannot be adjusted \leq MAX, GENERATE notification to Hope Creek Electrical / I&C System Engineering documenting each voltage operating limit violation (start & stop times) so that 4.16 KV System Engineer can track and analyze voltage levels. IAW Notification 20164742. [70038770]
- (6) 4.16 KV Buses supplied from a common Station Service Transformer (1AX501, 1BX501) have the same voltage and associated CRIDS points should read the same discounting instrument loop inaccuracies. If in normal bus alignment, any of the following CRIDS points are considered equivalent and may be substituted for any other if one or more is a failed indicator. (For 1AX501: A3209, A3484, A7061, A7066) (For 1BX501: A3210, A3487, A7076, A7071)

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ATTACHMENT 2 INPLANT DATA SHEET POWER DISTRIBUTION LINEUP - WEEKLY Page 15 of 33

1.0 Power Distribution Lineup (Continued)

EQUIPMENT	NOMENCLATURE	REQUIRED	ACTUAL	SAT/ UNSAT	PERF
CHANNEL D	4.16KV SWGR 10A404				
40401	NORMAL FEEDER BKR TO 10A404	CLOSED	CLOSED	SAT	<i>INIT</i>
40408	ALTERNATE FEEDER BKR TO 10A404	OPEN	OPEN	SAT	<i>INIT</i>
40407	EDG DG400 OUTPUT BKR TO 10A404	OPEN	OPEN	SAT	<i>INIT</i>
40403	10A404 FEED TO 10B480	CLOSED	CLOSED	SAT	<i>INIT</i>
40410	10A404 FEED TO 10B440	CLOSED	CLOSED	SAT	<i>INIT</i>
IF IN A NORMAL BUS ALIGNMENT [(2) 4.16 KV CLASS 1E BUSES AND (1) 4.16 KV NON-1E BUS ON EACH STATION SERVICE TRANSFORMER (SST) (1AX501, 1BX501)] WITH TAP CHANGER IN AUTO. RECORD THE FOLLOWING READING (USE CRIDS AS PRIMARY INDICATION (FLUKE SECONDARY)) (NOTES 2,3,4,&6)					
4.16 KV Bus 10A404 Voltage	CIRCLE ONE: CRIDS (A7071) Fluke (Model 45)	4173 - 4370 119.09 - 125.0	4283	SAT	<i>INIT</i>
IF IN AN ABNORMAL BUS ALIGNMENT [ANY CONFIGURATION OTHER THAN NORMAL ALIGNMENT] (NOTES 2, 3, 4, & 6)					
4.16 KV Bus 10A404 Voltage	CIRCLE ONE: CRIDS (A7071) Fluke (Model 45)	4276 - 4370 122.03 - 125.0		N/A	

- * The asterisk indicates Acceptance Criteria - in order to satisfy the requirements of the acceptance criteria, the SAT/UNSAT block must be marked SAT.
- (2) Voltage outside MIN/MAX may be indicative of a malfunctioning Transformer Load Tap Changer when in automatic. **COMPARE** Bus Voltage with Station Service Transformer Sec. Voltage. **IF** Bus Voltage is outside the MIN/MAX take Manual control of Load Tap Changer and **ADJUST** until voltage is within range. Voltage > MAX with Load Tap Changer on 1 position is normal during certain conditions (i.e., High voltage and/or no loads on bus.) (NOTE: If in a normal bus alignment with tap changer in manual and voltage remains within established limits, tap changer should be returned to AUTO. (Refer to the appropriate CRIDS point for the Station Service Transformer Sec. Voltage) [70038637]
- (3) Instructions on the use of a Fluke (Model 45) to obtain Bus Voltage Values can be found in HC-OP-SO-MC-0001(Z), Fluke (Model 45) Hookup and Voltage Readings at PT Secondary
- (4) **IF** Bus Voltage cannot be adjusted \geq MIN, **DECLARE** the respective offsite circuit of the A.C. electrical power source (NOP **AND ENTER** T/S 3.8.1.1.a Action Statement)
IF Bus Voltage cannot be adjusted \leq MAX, **GENERATE** notification to Hope Creek Electrical I&C System Engineering documenting each voltage operating limit violation (start & stop times) so that 4.16 KV System Engineer can track and analyze voltage levels. IAW Notification 20164742 [70038770]
- (6) 4.16 KV Buses supplied from a common Station Service Transformer (1AX501, 1BX501) have the same voltage and associated CRIDS points should read the same discounting instrument loop inaccuracies. If in normal bus alignment, any of the following CRIDS points are considered equivalent and may be substituted for any other if one or more is a failed indicator. (For 1AX501: A3209, A3484, A7061, A7066; (For 1BX501: A3210, A3487, A7076, A7071)

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ATTACHMENT 2 INPLANT DATA SHEET POWER DISTRIBUTION LINEUP - WEEKLY Page 24 of 33

1.0 Power Distribution Lineup (Continued)

EQUIP	NOMENCLATURE	REQUIRED	ACTUAL	SAT/ UNSAT	PERF
OFFSITE TO ONSITE DISTRIBUTION					
BS5-1	500KV BUS SECTION 5-1 BKR	CLOSED	CLOSED	SAT	INIT
BS1-3	500KV BUS SECTION 1-3 BKR	CLOSED	OPEN	UNSAT	INIT
BS6-5	500KV BUS SECTION 6-5 BKR	CLOSED	CLOSED	SAT	INIT
BS3-4	500KV BUS SECTION 3-4 BKR	CLOSED	OPEN	UNSAT	INIT
BS2-6	500KV BUS SECTION 2-6 BKR	CLOSED	CLOSED	SAT	INIT
BS2-4	500KV BUS SECTION 2-4 BKR	CLOSED	CLOSED	SAT	INIT
3T60	STA XFMR T3 CIRCUIT SWITCHER	CLOSED	CLOSED	SAT	INIT
1T60	STA XFMR T1 CIRCUIT SWITCHER	CLOSED	OPEN	UNSAT	INIT
4T60	STA XFMR T4 CIRCUIT SWITCHER	CLOSED	CLOSED	SAT	INIT
2T60	STA XFMR T2 CIRCUIT SWITCHER	CLOSED	CLOSED	SAT	INIT
BS9-0	13KV BUS SECTION 9-10 BKR	CLOSED	CLOSED	SAT	INIT
BS1-2	13KV BUS SECTION 1-2 BKR	CLOSED	OPEN	UNSAT	INIT
BS7-8	13KV BUS SECTION 7-8 BKR	OPEN	CLOSED	UNSAT	INIT
BS2-3	13KV BUS SECTION 2-3 BKR	OPEN	CLOSED	UNSAT	INIT
BS6-7	13KV BUS SECTION 6-7 BKR	CLOSED	OPEN	UNSAT	INIT
BS4-5	13KV BUS SECTION 4-5 BKR	CLOSED	CLOSED	SAT	INIT
Step 5.4 1.B	Salem Unit 3 Gas Turbine Generator	SAT #		N/A	*
Switchyard	2 INDEPENDENT OFFSITE SOURCES	SAT +	SAT	SAT	INIT *

- * **NOTE:** The above alignment represents the normal lineup of the 500kv/13.8kv Switchyards. Under the direction of the SM/CRS deviations may exist while still maintaining two independent offsite power source separation. IF actual alignment deviates from the above, **CONSULT** Electrical Drawing E-0001-0 to determine if proper separation exists, and IAW the following criteria: 500kv Bus Sections 1 & 2 energized by two offsite sources (Red Lion 501E, New Freedom 5023, or Salem X-Tie 5037). Two feeds (10X and 20X) into a split 13.8kv Yard, with each feed supplying power to an energized separate Station Service Transformer (AX501 and BX501). An independent offsite feed is considered available to the safety related distribution system IF all four of the 1E infeed breakers are OPERABLE. IF less than 4 breakers are OPERABLE, **CONSIDER** the offsite feed inoperable and comply with ACTION 3.8.1.1 as appropriate.
- * Salem Unit 3 Turbine Generator is only required when in an extended A or B EDG outage. REFER to Step 5.4.1 for a list of required equipment. IF not required, THEN N/A.
- * IF + Note is satisfied Acceptance Criteria for maintain two independent power sources is SAT, otherwise it is UNSAT.

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JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. T-1 Station Power Transformer was cleared and tagged for maintenance. 1T60 and 1T30 are open.
2. Emergency Diesel Generator B developed a small Lube Oil leak and was just declared inoperable. Clearance paperwork is being prepared. Time to complete repairs and retest is expected to be completed within 4 hours.
3. The Red Lion Offsite Power Source was just lost.
4. HC.OP-ST.ZZ-0001, Power Distribution Lineup-Weekly, is required to be performed to satisfy Technical Specification Surveillance requirement 4.8.1.1.1.a.

INITIATING CUE:

PERFORM HC.OP-ST.ZZ-0001, POWER DISTRIBUTION LINEUP – WEEKLY to satisfy Technical Specification 4.8.1.1.1.a only.

JOB PERFORMANCE MEASURE

STATION: Hope Creek

**2018 JG NRC
RO-A4**

Copy _____ of _____

SYSTEM: Radiation Control

TASK NUMBER: 2990420302

TASK: Verify Compliance with Gaseous Release Permit

JPM NUMBER: 305H-JPM.ZZ064

REVISION: 00

SAP BET: NOH05JPZZ64E

K/A NUMBER: 2.3.11 Ability to control radiation releases.

IMPORTANCE FACTOR: RO: 3.8 SRO: 4.3

ALTERNATE PATH: ☐

APPLICABILITY: RO ☒

EVALUATION SETTING/METHOD: Simulator (Classroom)/Perform

REFERENCES: OP-HC-103-105, Rev. 1

TOOLS, AND EQUIPMENT: OP-HC-103-105; Calculator

ESTIMATED COMPLETION TIME: 18 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A Minutes

JPM PERFORMED BY: _____

GRADE: SAT ☐

UNSAT ☐

ACTUAL COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION TIME: N/A Minutes

REASON IF UNSATISFACTORY:

EVALUATOR: _____
Signature

DATE: _____

JOB PERFORMANCE MEASURE

SYSTEM: Radiation Control

TASK NUMBER: 2990420302

TASK: Verify Compliance with Gaseous Release Permit

INITIAL CONDIITONS:

1. A plant shutdown is in progress for a Refueling outage.

INITIATING CUE:

INITIATE a Valve Permit in accordance with OP-HC-103-105 in preparation for purging the Primary Containment later today July 18, 2018.

JPM NUMBER: ZZ064
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
CUE:	PROVIDE the operator the initiating cue, a copy of OP-HC-103-105, <u>AND</u> ENTER START TIME AFTER Operator repeats back the Initiating Cue. START TIME: _____ 			
	Operator determines beginning step of the procedure.	Operator determines correct beginning step to be 4.3.		
4.3	Initiation of Valve Permit. When it is determined that a valve permit is necessary for Containment Atmosphere Control System valves, a valve permit shall be initiated as follows: NOTE Permits are valid for only ONE calendar day ending at 2400.	Operator reads and initials step and NOTE.		
4.3.1.	ENTER the valid date for the permit on Form 1 and in Section A of Form 2. The date of the permit will serve as the unique identifier for that permit.	*Operator enters today's date on Form 1 and in Section A of Form 2, and initials step.		
4.3.2	CONTACT Radiation Protection to determine if a Gaseous Effluent Permit will be required for the pending valve manipulation. If a Gaseous Effluent Permit is required, OBTAIN the number from Radiation Protection and enter it in section A of Form 2. If initiating a new valve permit for commencing a new day with valves open, USE the same Gaseous Effluent Permit number from the previous day.	*Operator contacts Radiation Protection to determine if a Gaseous Effluent Permit will be required for the pending valve manipulation, obtains the number, and enters it in section A of Form 2, and initials step.		
CUE:	IF the operator requests a Gaseous Effluent Permit number, <u>THEN STATE</u> that a Gaseous Effluent Permit is required and the permit number is G-20180718-103-B.			

JPM NUMBER: ZZ064
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
NOTE	An administrative limit of less than 452 hours of open time is imposed by this procedure to ensure that the Tech Spec limit is never exceeded. A running total of the time that these valves are open during the previous year will be maintained by this procedure. At the end of each day, any open time that was accumulated on or before the same date one year earlier, will be subtracted from the running total of open valve time.	Operator reads and initials NOTE.		
4.3.3.	From Form 1, OBTAIN the date and number of hours valves were open for each occasion of recorded valve operation during the previous year. ENTER this information in Section B of Form 2.	*Operator obtains the date and number of hours valves were open for each occasion of recorded valve operation during the previous year and enters this information in Section B of Form 2, and initials step. Examiner Note: Refer to Examiner's Copy of Form 2 for satisfactory completion of these steps.		
4.3.4.	On Form 2, COMPUTE the total number of hours these valves have been open in the previous year	*Operator computes the total number of hours that the valves have been open in the previous year (42.5) on Form 2, and initials step.		
4.3.5.	COMPLETE the information in Section B of Form 2.	*Operator completes the information in Section B of Form 2, and initials step.		
4.3.6.	The NCO performing the Section B calculations should sign in the appropriate space and enter the time and date.	*Operator signs in the appropriate space and enters the time and date in Section B, and initials step.		

JPM NUMBER: ZZ064
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	(*Critical Step) (#Sequential Step) STANDARD	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
4.3.7.	The SM/CRS should verify the calculations, sign in the appropriate space for verification and authorization and enter the time and date	*Operator provides Form 2 to the SM/CRS to verify the calculations, sign in the appropriate space for verification and authorization, and enter the time and date, and initials step.		
CUE:	WHEN the operator requests the SM/CRS should verify the calculations, THEN INFORM the operator that you are the CRS; SIGN and enter the time and date in the appropriate space for SM/CRS verification and authorization on Form 2. NOTE: Ensure the operator is aware of the spelling of your name.			
4.3.8.	On Form 1, ENTER the name of the SM/CRS authorizing the valve permit and the number of hours authorized on this permit. The NCO entering this information should initial in the appropriate space.	*Operator enters the name of the SM/CRS authorizing the valve permit and the number of hours authorized on this permit, and initials in the appropriate spaces on Form 1, and initials step.		
4.3.9.	The hours authorized this date may exceed the actual hours remaining in the day for which the permit was prepared.	Operator reads and initials step.		
CUE:	WHEN operator informs you the task is complete, OR the JPM has been terminated for other reasons, THEN RECORD the STOP TIME. REPEAT BACK any message from the operator on the status of the JPM, and then state "This JPM is complete" . STOP TIME: _____			
Task Standard: Operator initiates a Valve Permit in accordance with OP-HC-103-105.				

@Comments regarding any identified trainee failure to adhere to Operator Fundamentals of SER 3-05, Weaknesses in Operator Fundamentals, shall be noted in the comments. [IER L1-11-3 Rec. 3b]

**OPERATOR TRAINING PROGRAM
EVALUATOR FOLLOWUP QUESTION DOCUMENTATION**

JPM NUMBER: ZZ064
REV NUMBER: 00

NAME: _____
DATE: _____

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

JOB PERFORMANCE MEASURE

JPM NUMBER: ZZ064

REVISION HISTORY

Rev #	Date	Description	Validation Required?
00	7/5/2018	New JPM.	Y

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM NUMBER: ZZ064

REV#: 00

TASK: Verify Compliance with Gaseous Release Permit

- | | |
|---|---|
| X | 1. Task description and number, JPM description and number are identified. |
| X | 2. Knowledge and Abilities (K/A) is identified, and is: ≥ 3.0 (LOR); or ≥ 2.5 (ILT); or justification is provided. |
| X | 3. License level identified. (SRO,RO,STA,NLO) |
| X | 4. Performance location specified (In-Plant, Control Room, Simulator, or Classroom). |
| X | 5. Initial setup conditions are identified. |
| X | 6. Initiating and terminating cues are properly identified. |
| X | 7. Task standards for successful completion are identified. |
| X | 8. Critical steps meet the criteria for critical steps and are identified with an asterisk (*). Sequence Critical Steps are identified with a pound sign (#). |
| X | 9. JPM has multiple Critical Tasks, or justification of the basis for a single critical task. |
| X | 10. Procedure(s) referenced by this JPM match the most current revision of that procedure. |
| X | 11. Cues both verbal and visual are complete and correct. |
| X | 12. Performance standards are specific in exact control and indication nomenclature (switch position, meter reading) even if these criteria are not specified in the procedural step. |
| X | 13. Statements describing important actions or observations that should be made by the operator are included (if required.) |
| X | 14. Validation time is included. |
| X | 15. JPM is identified as Time Critical and includes Critical Time (if required). |

VALIDATED BY:

Qualification Level Required: RO

<u>ON FILE</u>	<u>RO</u>	<u>ON FILE</u>	<u>7/5/2018</u>
Name	Qual	Signature	Date

ON FILE	RO	ON FILE	7/5/2018
Name	Qual	Signature	Date

JOB PERFORMANCE MEASURE

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FORM 1

CONTAINMENT PREPURGE CLEANUP, INERTING, OR PRESSURE CONTROL VALVE PERMIT LOG

Page 1 of

DATE	HOURS PREV. YEAR (NOTE 1)	HOURS AUTH. THIS PERMIT	NAME OF SM/CRS AUTHORIZING THIS PERMIT	NCO INITIAL	HOURS USED THIS PERMIT	TOTAL HOURS PREVIOUS YEAR (NOTE 1)	NAME OF SM/CRS CLOSING THIS PERMIT	NCO INITIAL
8/21/15	17	24.0	Jones	a	24.0	41.0	White	D
8/22/15	41.0	24.0	Davis	B	12.5	53.5	Busch	M
5/14/16	53.5	24.0	Bernard	D	15.5	69.0	Jones	R
5/15/16	69.0	24.0	Pike	F	5.0	74.0	Miller	a
5/16/17	0.0	24.0	Miller	M	24.0	24.0	Jones	B
7/17/17	24.0	24.0	Busch	R	24.0	48.0	Pike	D
7/18/17	48.0	24.0	Lerner	K	17.5	65.5	Miller	B
9/1/17	65.5	24.0	Thomas	M	14.5	80.0	Jones	F
9/18/17	80.0	24.0	White	D	10.5	90.5	Davis	R
7/18/18	42.5	24.0	Examiner's Name	Operator's Initials				

NOTE 1: The previous year includes the period from 2400 on today's date back to 0001 on the same date one year earlier.

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OP-HC-103-105

Revision 1

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EXAMINER'S COPY**FORM 2****CONTAINMENT PREPURGE CLEANUP, INERTING, OR PRESSURE CONTROL VALVE PERMIT****SECTION A**Date: Today's Date**NOTE:** This permit is valid only until 2400 of this dateGaseous Effluent Permit #: G-20180718-103-B**SECTION B****HOURS VALVES/LINES OPEN PREVIOUS YEAR (Note 1)**

Calculate Total Hours Open During Previous Year (NOTE 1)			
DATE	NUMBER OF HOURS		
7/18/17	17.5	(1) Max. allowed for 365 days (Admin Limit)	452 hrs
9/1/2017	14.5	(2) Total previous year (NOTE 1)	(-) 42.5
9/18/17	10.5	(3) Hours available this date (line 1 minus line 2)	(=) 409.5
		Hours authorized this date (24 hours or Line (3), the hours available this date whichever is less)	24
		NCO performing calculation	Date/Time
		Operator's Signature	Today/Time
		SM/CRS verification and authorization	Date/Time
		Examiner's Signature	Today/Time

SECTION C**VALVE/LINE OPEN TIME (Note 2)**

START TIME	STOP TIME	TOTAL HOURS
Time at which valve/line was open or Condition 1, 2, or 3 was entered with valve/line open	Time at which valve/line was closed or Condition 4 or 5 was entered with valve/line opened	Total number of hours valve/line opened this cycle
		(NOTE 3)
Total number of hours valves/line open this permit:		
NCO performing calculations		Date/Time
SM/CRS Closing permit		Date/Time

NOTE 1: The previous year includes the period from 2400 on today's date back to 0001 on the same date one year earlier.

NOTE 2: Completed Form 2 should be filed in the AP-104 binder in the Control Room.

NOTE 3: When computing the total hours (round up to the nearest 0.5 hr or to the nearest 1.0 hr)

EXAMINER'S COPY

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. A plant shutdown is in progress for a Refueling outage.

INITIATING CUE:

INITIATE a Valve Permit in accordance with OP-HC-103-105 in preparation for purging the Primary Containment later today July 18, 2018.

JOB PERFORMANCE MEASURE

OP-HC-103-105

Revision 1

Page 8 of 9

TRAINING ONLY

FORM 1

CONTAINMENT PREPURGE CLEANUP, INERTING, OR PRESSURE CONTROL VALVE PERMIT LOG

Page 1 of

DATE	HOURS PREV. YEAR (NOTE 1)	HOURS AUTH. THIS PERMIT	NAME OF SM/CRS AUTHORIZING THIS PERMIT	NCO INITIAL	HOURS USED THIS PERMIT	TOTAL HOURS PREVIOUS YEAR (NOTE 1)	NAME OF SM/CRS CLOSING THIS PERMIT	NCO INITIAL
8/21/15	17	24.0	Jones	a	24.0	41.0	White	7
8/22/15	41.0	24.0	Davis	B	12.5	53.5	Basch	W
5/14/16	53.5	24.0	Bernard	7	15.5	69.0	Jones	R
5/15/16	69.0	24.0	Pike	7	5.0	74.0	Miller	a
5/16/17	0.0	24.0	Miller	W	24.0	24.0	Jones	B
7/17/17	24.0	24.0	Basch	R	24.0	48.0	Pike	7
7/18/17	48.0	24.0	Lerner	K	17.5	65.5	Miller	B
9/1/17	65.5	24.0	Thomas	7	14.5	80.0	Jones	7
9/18/17	80.0	24.0	White	7	10.5	90.5	Davis	R

NOTE 1: The previous year includes the period from 2400 on today's date back to 0001 on the same date one year earlier.

TRAINING ONLY

JOB PERFORMANCE MEASURE

OP-HC-103-105

Revision 1

Page 9 of 9

TRAINING ONLY

FORM 2

CONTAINMENT PREPURGE CLEANUP, INERTING, OR PRESSURE CONTROL VALVE PERMIT

SECTION A

Date: _____

NOTE: This permit is valid only until 2400 of this date

Gaseous Effluent Permit #: _____

SECTION B

HOURS VALVES/LINES OPEN PREVIOUS YEAR (Note 1)

Calculate Total Hours Open
During Previous Year (**NOTE 1**)

DATE NUMBER OF HOURS

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

(1) Max. allowed for 365 days (Admin Limit) **452 hrs**

(2) Total previous year (**NOTE 1**) (-) _____

(3) Hours available this date
(line 1 minus line 2) (=) _____

Hours authorized this date
(24 hours or Line (3), the hours available this
date whichever is less) _____

NCO performing calculation Date/Time _____

SM/CRS verification and authorization Date/Time _____

SECTION C

VALVE/LINE OPEN TIME (Note 2)

START TIME

Time at which valve/line was open or
Condition 1, 2, or 3 was entered with
valve/line open

STOP TIME

Time at which valve/line was closed
or Condition 4 or 5 was entered with
valve/line opened

TOTAL HOURS

Total number of hours
valve/line opened this
cycle

(**NOTE 3**)

Total number of hours valves/line open this permit: _____

NCO performing calculations Date/Time _____

SM/CRS Closing permit Date/Time _____

NOTE 1: The previous year includes the period from 2400 on today's date back to 0001 on the same date one year earlier.

NOTE 2: Completed Form 2 should be filed in the AP-104 binder in the Control Room.

NOTE 3: When computing the total hours (round up to the nearest 0.5 hr or to the nearest 1.0 hr)

TRAINING ONLY

JOB PERFORMANCE MEASURE

STATION: Hope Creek

2018 JG NRC
RO A5

Copy _____ of _____

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

TASK NUMBER:

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

JPM NUMBER: 305H-JPM.ZZ065

REVISION: 00

SAP BET: NOH05JP65E

K/A NUMBER: 2.4.39 Knowledge Of RO Responsibilities In Emergency Plan Implementation.

IMPORTANCE FACTOR: RO: 3.9 SRO: 3.8

ALTERNATE PATH: ☐

APPLICABILITY: RO ☒

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: EP-HC-111-F8, Rev. 04

TOOLS, AND EQUIPMENT: None

ESTIMATED COMPLETION TIME: 11 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A Minutes

JPM PERFORMED BY: _____

GRADE: SAT ☐

UNSAT ☐

ACTUAL COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION TIME: N/A Minutes

REASON IF UNSATISFACTORY:

EVALUATOR: _____
Signature

DATE: _____

JOB PERFORMANCE MEASURE

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

TASK NUMBER:

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

INITIAL CONDIITONS:

1. CRIDS is out of service.
2. EDG CG400 is tagged for maintenance.
3. A Loss of Offsite Power (LOP) and a LOCA has occurred.
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. The Primary Containment is intact.
6. An Alert was declared approximately 20 minutes ago.

INITIATING CUE:

PERFORM the Licensed Operator Review of the Hope Creek Operational Status Board.

JPM NUMBER: ZZ065
 REV NUMBER: 00

NAME: _____
 DATE: _____

STEP NUMBER	ELEMENT	STANDARD (*Critical Step) (#Sequential Step)	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
CUE:	PROVIDE the operator the initiating cue, completed Exhibits 2 and 3 of EP-HC-111-F8, <u>AND</u> ENTER START TIME AFTER Operator repeats back the Initiating Cue. START TIME: _____			
EP-HC-111-F8				
2.	COMPLETE the Operational Status Board (OSB) (EXHIBIT 2): d. OBTAIN Licensed Operator review.	Examiner Note: All values are checked by designated Recorder indications, since, CRIDS is OOS. 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. Operator reviews the OSB and compares it to the plant conditions. *Operator identifies/corrects that Item II.A, RHR/LPCI FLOW A and RHR/LPCI FLOW C have been recorded in error, AND that RHR/LPCI FLOW A should be circled, since, they are not in the LPCI mode (see **).		
CUE:	IF the operator just states the corrections needed, THEN state make corrections to the OSB as necessary.			
		*Operator identifies/corrects that Item V.B. has NO incorrectly entered.		
CUE:	IF the operator just states the corrections needed, THEN state make corrections to the OSB as necessary.			
		*Operator initials OSB.		

JPM NUMBER: ZZ065
REV NUMBER: 00

NAME: _____
DATE: _____

STEP NUMBER	ELEMENT	STANDARD (*Critical Step) (#Sequential Step)	SAT/ UNSAT	COMMENTS (Required for UNSAT)@
CUE:	<p><u>WHEN</u> operator informs you the task is complete, <u>OR</u> the JPM has been terminated for other reasons, <u>THEN RECORD</u> the STOP TIME.</p> <p>REPEAT BACK any message from the operator on the status of the JPM, and then state "This JPM is complete".</p> <p>STOP TIME: _____</p>			
Task Standard: Operator performs the Licensed Operator Review of the Hope Creek Operational Status Board in accordance with EP-HC-111-F8.				

@Comments regarding any identified trainee failure to adhere to Operator Fundamentals of SER 3-05, Weaknesses in Operator Fundamentals, shall be noted in the comments. **[IER L1-11-3 Rec. 3b]**

**OPERATOR TRAINING PROGRAM
EVALUATOR FOLLOWUP QUESTION DOCUMENTATION**

JPM NUMBER: ZZ065
REV NUMBER: 00

NAME: _____
DATE: _____

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

QUESTION: _____

RESPONSE: _____

RESULT: **SAT** ☐ **UNSAT** ☐

JOB PERFORMANCE MEASURE

JPM NUMBER: ZZ065

REVISION HISTORY

Rev #	Date	Description	Validation Required?
00	7/5/2018	Modified from ZZ005.	Y
00	7/26/2018	Incorporated comments from NRC validation.	N

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM NUMBER: ZZ065

REV#: 00

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

- | | |
|--------------|---|
| <u> X </u> | 1. Task description and number, JPM description and number are identified. |
| <u> X </u> | 2. Knowledge and Abilities (K/A) is identified, and is: ≥ 3.0 (LOR); or ≥ 2.5 (ILT); or justification is provided. |
| <u> X </u> | 3. License level identified. (SRO,RO,STA,NLO) |
| <u> X </u> | 4. Performance location specified (In-Plant, Control Room, Simulator, or Classroom). |
| <u> X </u> | 5. Initial setup conditions are identified. |
| <u> X </u> | 6. Initiating and terminating cues are properly identified. |
| <u> X </u> | 7. Task standards for successful completion are identified. |
| <u> X </u> | 8. Critical Steps meet the criteria for critical steps and are identified with an asterisk (*). Sequence Critical Steps are identified with a pound sign (#). |
| <u> X </u> | 9. JPM has multiple Critical Steps, or justification of the basis for a single Critical Step. |
| <u> X </u> | 10. Procedure(s) referenced by this JPM match the most current revision of that procedure. |
| <u> X </u> | 11. Cues both verbal and visual are complete and correct. |
| <u> X </u> | 12. Performance standards are specific in exact control and indication nomenclature (switch position, meter reading) even if these criteria are not specified in the procedural step. |
| <u> X </u> | 13. Statements describing important actions or observations that should be made by the operator are included (if required.) |
| <u> X </u> | 14. Validation time is included. |
| <u> X </u> | 15. JPM is identified as Time Critical and includes Critical Time (if required). |

VALIDATED BY:

Qualification Level Required: RO

<u> ON FILE </u> Name	<u> RO </u> Qual	<u> ON FILE </u> Signature	<u> 7/5/2018 </u> Date
 <u> ON FILE </u> Name	 <u> RO </u> Qual	 <u> ON FILE </u> Signature	 <u> 7/5/2018 </u> Date

JOB PERFORMANCE MEASURE

SIMULATOR SETUP INSTRUCTIONS

(OPTIONAL)

JPM NUMBER: ZZ065

REV#: 00

INITIAL CONDITIONS:

I.C.

Initial	
	INITIALIZE to any 100% power IC.
	STOP CRIDS from the Computer Room.
	PLACE the simulator in RUN.
	INSERT ET-1 and take scram actions IAW HC.OP-AB.ZZ-0001.
	PLACE RHR A in Suppression Pool Cooling and Spray IAW HC.OP-AB.ZZ-0001.
	PLACE RHR B in Drywell Spray IAW HC.OP-AB.ZZ-0001.
	OVERRIDE closed RHR D HV-F017D.
	PLACE H2O2 Analyzer B in-service to the Drywell.
	INSERT ET-2; take actions to implement EOP-326 for Core Spray Loop A AND ADJUST HV-F005A to obtain approximately 4000 gpm flow.
	ADJUST Malfunction RR31A2 as necessary to obtain RPV water level stable at approximately -120 inches
	PLACE the simulator in FREEZE.

PREP FOR TRAINING (i.e., RM-11 set points, procedures, bezel covers)

Initial	Description
	MARK-UP a copy of Exhibit 3 for an Alert with the values from the appropriate indicators (refer to attached).
	MARK-UP a copy of the OSB (Exhibit 2) with the values from the appropriate indicators (refer to attached).
	COMPLETE "Simulator Ready-for-Training/Examination Checklist".

JOB PERFORMANCE MEASURE SIMULATOR SETUP INSTRUCTIONS (OPTIONAL)

EVENT FILE:

<i>Initial</i>	ET	
		Event code:
		Description:

MALFUNCTION SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description
	None	None	Insert malfunction DG01C	Diesel generator C failure to start
	None	None	Insert malfunction EG12 on event 1	Loss of all off site power
	None	None	Insert malfunction RR31A2 to 19.00000 on event 1	Recirc loop A large break [V] (10%~6000 gpm, 100%~60000 gpm)

REMOTE SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description
	None	None	Insert remote EP43 to DISABLED on event 2	EP43 EOP-326, HV-F005A Core Spray INJ Valve Seal In

OVERRIDE SCHEDULE:

<i>Initial</i>	@Time	Event	Action	Description
	None	None	Insert override 6A6_A_AO to 0	B H2O2 OXYGEN % (AO)

JOB PERFORMANCE MEASURE

EXHIBIT 2

HOPE CREEK OPERATIONAL STATUS BOARD

Page 1 of 1

EP-HC-111-F8

ATT 8

Page 9 of 16

EXAMINER'S COPY

NOTE: 1) IF REQUESTED, TRANSMIT THIS FORM TO H-MS/OSB EVERY 15 MINUTES.

2) PROVIDE A COPY TO THE OSC COORDINATOR.

3) If a system is in service and the associated indication is failed, utilize alternate available indication and annotate system status in Section VI. OTHER SIGNIFICANT ITEMS

DATE: Today

TIMES (24-HOUR CLOCK)

			NOW			
I.	BALANCE OF PLANT	INST E PLAN	UNITS			
	A. CST LEVEL	(1)	GAL	303600		
	B. CONDENSER VACUUM	(2)	IN. HGa	2.50		
	C. RCIC FLOW	(3)	X 10 ¹ GPM	0		
	D. FEED FLOW	(4)	MLB/HR	0		
II.	ECCS					
	A. RHR FLOW-A**	(5)	GPM	0	10496	
	RHR FLOW-C	(5)	GPM	10496	0	
	RHR FLOW-B**	(6)	GPM	9552		
	RHR FLOW-D	(6)	GPM	0		
	B. HPCI PUMP FLOW	(7)	X 10 ² GPM	0		
	C. CORE SPRAY FLOW-A	(8)	X 10 ³ GPM	4.12		
	CORE SPRAY FLOW-B	(9)	X 10 ³ GPM	7.00		
	D. SRV (OPEN) STATUS		# OPEN	0		
III.	RX COOLANT SYSTEM					
	A. POWER	(11-16)	% or CPS	0		
	B. WATER LEVEL	(17,20,21,22)	IN.	-118.3		
	C. PRESSURE	(18,19)	PSIG	0		
	D. TEMPERATURE	(23)	DEGREES F	209.5		
	E. RECIRC FLOW - A LOOP	(24)	GPM	0		
	RECIRC FLOW - B LOOP	(24)	GPM	10		
	F. JET PUMP FLOW (TOTAL)	(25)	MLB/HR	5.88		
IV.	CONTAINMENT					
	A. DRYWELL PRESSURE	(26,27)	PSIG	4.32		
	TEMPERATURE	(28,29)	DEGREES F	180.4		
	H2 CONC.	(30,31)	%	0		
	O2 CONC.	(30,31)	%	0		
	B. SUPP. CHAMBER PRESS.	(26,27)	PSIG	4.6		
	AIR TEMPERATURE	(28,29)	DEGREES F	109.8		
	WATER LEVEL	(32)	IN.	77.9		
	WATER TEMPERATURE	(33,34)	DEGREES F	125.4		
	C. RX BLDG. DELTA P	(35,36)	IN. H ₂ O	-0.555		
V.	SSCL					
	A. OFFSITE POWER AVAILABLE?	YES/NO	NO			
	B. 3 OR MORE DG'S AVAILABLE?	YES/NO	NO	YES		
	C. DID ANY ECCS ACTUATE?	YES/NO	YES			
	D. IS THE PRIMARY CONTAINMENT BARRIER FAILED?	YES/NO	NO			

LICENSED OPERATOR REVIEW

INITIALS: Initials

VI. OTHER SIGNIFICANT ITEMS

** If not in LPCI mode, flow rate is circled (i.e. S/D Cooling, Containment Spray, etc.)

JOB PERFORMANCE MEASURE

INITIAL CONDITIONS:

1. CRIDS is out of service.
2. EDG CG400 is tagged for maintenance.
3. A Loss of Offsite Power (LOP) and a LOCA has occurred.
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. The Primary Containment is intact.
6. An Alert was declared approximately 20 minutes ago.

INITIATING CUE:

PERFORM the Licensed Operator Review of the Hope Creek Operational Status Board.

JOB PERFORMANCE MEASURE

EXHIBIT 2

HOPE CREEK OPERATIONAL STATUS BOARD

Page 1 of 1

EP-HC-111-F8

ATT 8

Page 9 of 16

NOTE: 1) IF REQUESTED, TRANSMIT THIS FORM TO H-MS/OSB EVERY 15 MINUTES.

2) PROVIDE A COPY TO THE OSC COORDINATOR.

3) If a system is in service and the associated indication is failed, utilize alternate available indication and annotate system status in Section VI. OTHER SIGNIFICANT ITEMS

DATE: Today

TIMES (24-HOUR CLOCK)				NOW			
I.	BALANCE OF PLANT	INST E PLAN	UNITS				
	A. CST LEVEL	(1)	GAL	303600			
	B. CONDENSER VACUUM	(2)	IN. HGa	2.50			
	C. RCIC FLOW	(3)	X 10 ¹ GPM	0			
	D. FEED FLOW	(4)	MLB/HR	0			
II.	ECCS						
	A. RHR FLOW-A**	(5)	GPM	0			
	RHR FLOW-C	(5)	GPM	10496			
	RHR FLOW-B**	(6)	GPM	9552			
	RHR FLOW-D	(6)	GPM	0			
	B. HPCI PUMP FLOW	(7)	X 10 ² GPM	0			
	C. CORE SPRAY FLOW-A	(8)	X 10 ³ GPM	4.12			
	CORE SPRAY FLOW-B	(9)	X 10 ³ GPM	7.00			
	D. SRV (OPEN) STATUS		# OPEN	0			
III.	RX COOLANT SYSTEM						
	A. POWER	(11-16)	% or CPS	0			
	B. WATER LEVEL	(17,20,21,22)	IN.	-118.3			
	C. PRESSURE	(18,19)	PSIG	0			
	D. TEMPERATURE	(23)	DEGREES F	209.5			
	E. RECIRC FLOW – A LOOP	(24)	GPM	0			
	RECIRC FLOW – B LOOP	(24)	GPM	10			
	F. JET PUMP FLOW (TOTAL)	(25)	MLB/HR	5.88			
IV.	CONTAINMENT						
	A. DRYWELL PRESSURE	(26,27)	PSIG	4.32			
	TEMPERATURE	(28,29)	DEGREES F	180.4			
	H2 CONC.	(30,31)	%	0			
	O2 CONC.	(30,31)	%	0			
	B. SUPP. CHAMBER PRESS.	(26,27)	PSIG	4.6			
	AIR TEMPERATURE	(28,29)	DEGREES F	109.8			
	WATER LEVEL	(32)	IN.	77.9			
	WATER TEMPERATURE	(33,34)	DEGREES F	125.4			
	C. RX BLDG. DELTA P	(35,36)	IN. H ₂ O	-0.555			
V.	SSCL						
	A. OFFSITE POWER AVAILABLE?		YES/NO	NO			
	B. 3 OR MORE DG'S AVAILABLE?		YES/NO	NO			
	C. DID ANY ECCS ACTUATE?		YES/NO	YES			
	D. IS THE PRIMARY CONTAINMENT BARRIER FAILED?		YES/NO	NO			

LICENSED OPERATOR REVIEW

INITIALS:

VI. OTHER SIGNIFICANT ITEMS

** If not in LPCI mode, flow rate is circled (i.e. S/D Cooling, Containment Spray, etc.)

JOB PERFORMANCE MEASURE

SSCL

EXHIBIT 3 STATION STATUS CHECKLIST PAGE 1 OF 2

EP-HC-111-F8
ATT 8
Page 10 of 16

Operational Information

HOPE CREEK GENERATING STATION

Transmitted By: Name J. Jones Position CM2
(CR/TSC/EOF)

Message Date Today Time -20 min

1. Date and Time Event Declared Date Today Time -20 min (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) RB2.L

Description of the event Loss of the Reactor Coolant System Barrier

4. Release Status:

- ☒ There is NO release due to the event (Page 2 NOT required) - LAW ICMF Definition
☐ There IS a release due to the event (Page 2 attached) - (EXHIBIT 4)
☐ There ARE multiple unit releases due to the event(s) (Page 2 attached) (EXHIBIT 5)
☐ The Release has been TERMINATED

5. Status of Reactor: ☒ Scrammed Time of Scram: -20 min
☐ At Power ☐ Startup ☐ Hot Shutdown ☐ Cold Shutdown ☐ Refuel

6. Rx Pressure 0 psig Rx Temp 209.5 °F Rx Water Level -118.3 in
INST (18.19) (23.CRED'S Pt A2942) (17.20.21.22)

7. Is offsite power available? ☐ YES ☒ NO

8. Are three or more diesel generators available? ☒ YES ☐ NO

9. Did any Emergency Core Cooling Systems actuate? ☒ YES ☐ NO

10. Is the Containment barrier failed? (Loss per EAL Barrier Table) ☐ YES ☒ NO

11. Other pertinent information _____

APPROVED: T
(EC or TSS or SSM)