

Southern Nuclear E. I. Hatch Nuclear Plant

Operations Training JPM

DRAFT

ADMIN 1 (ALL)

TITLE		
Heat Stress Stay Time - Work In Steam Tunnel		
AUTHOR	MEDIA NUMBER	TIME
Anthony Ball	2013-301 ADMIN-1	20 Minutes
RECOMMENDED BY	APPROVED BY	DATE
N/R		



SOUTHERN NUCLEAR OPERATING COMPANY PLANT E. I. HATCH		Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET		

SOUTHERN NUCLEAR OPERATING COMPANY PLANT E. I. HATCH		Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET		

SOUTHERN NUCLEAR OPERATING COMPANY PLANT E. I. HATCH		Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET		

Program/Course Code: **OPERATIONS TRAINING** Media Number: **2013-301 ADMIN-1**

Program/Course Code: **OPERATIONS TRAINING** Media Number: **2013-301 ADMIN-1**

[illegible]

UNIT 1 (X) UNIT 2 (X)

TASK TITLE: Heat Stress Stay Time - Work In Steam Tunnel

JPM NUMBER: 2013-301 ADMIN-1

TASK STANDARD: The task shall be completed when the estimated Adjusted Wet Bulb Globe Temperature has been determined and the acceptability of the stay time to complete the job IAW NMP-FLS-002.

TASK NUMBER: None

OBJECTIVE NUMBER: None

K/A CATALOG JTA IMPORTANCE RATING:

K/A CATALOG NUMBER: G2.1.26

RO 3.4

SRO 3.6

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 1 & 2
	NMP-FLS-002 (current version)

REQUIRED MATERIALS:	Unit 1 & 2
	NMP-FLS-002 (current version)

APPROXIMATE COMPLETION TIME: 20 Minutes

SIMULATOR SETUP: N/A

EVALUATOR COPY

UNIT 1 & 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. You are a member of a team scheduled to perform work in the Unit 2 Steam Tunnel.
2. The work will be in close proximity to Main Steam Lines which are pressurized with 700 psig steam.
3. Steam Tunnel Temperature is 98°F.
4. Steam Tunnel Humidity is 100%.
5. Worker Clothing: OREX coveralls over Personal modesty garments.
6. The work that is being performed is HEAVY WORK LEVEL.
7. The work will take 28 minutes to complete.

INITIATING CUES:

Use NMP-FLS-002, "Heat Stress" and the information provided to determine BOTH:

- The estimated Adjusted Wet Bulb Globe Temperature (AWBGT)

AND

- If the STAY TIME for the team members is acceptable to complete the work.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

**START
TIME:** _____

NOTE: The candidate may review the Precautions & Limitations and various sections of the procedure prior to determining the AWBGT and stay time.

NOTE: If the candidate does NOT use the Attachment 1 flowchart for this JPM; but the AWBGT and Stay Times are **CORRECTLY** determined, then the task will be considered **PASSED** with comments explaining that Hatch Procedure Use expectations were NOT met.

1.	Step 6.5 direction: Follow decision making flowchart contained in Attachment 1.	The candidate enters the decision making flowchart contained in Attachment 1.	
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PROMPT: **IF ASKED** whether a WBGT meter is available to be used, **INFORM** the candidate that the task of estimating stay time will NOT be performed using a WBGT meter.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
2.	Determine WBGT using one of the following methods.	<p>The candidate selects Estimate WBGT using table provided in Appendix B if air temperature and relative humidity are known or measured.</p> <p>The candidate evaluates Appendix B and DETERMINES that at 98°F with 100% humidity, the WBGT= 98°F, then adds +3°F for radiant heat present and WBGT = 101°F.</p>	

3.	Determine the clothing ensemble to be worn during the work	The candidate determines the Worker Clothing ensemble to be OREX coveralls over Personal modesty garments.	
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PROMPT: **IF ASKED** about clothing to be worn during the work activities, **INFORM** the candidate to refer to the Initial Conditions.

**4.	Calculate AWBGT (per 6.2.3) by incorporating Clothing Adjustment Factor (CAF) obtained from Appendix A	<p>The candidate determines the CAF to be +3°F.</p> <p>The candidate adds 101°F (WBGT) + 3°F (CAF) to obtain</p> <p>AWBGT = 104°F.</p>	
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5.	Estimate Work Level category (See definitions)	The candidate determines the work level is HEAVY (information was provided in Initial Conditions)	
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
6.	Is AWBGT $\geq 89^{\circ}\text{F}$ for Light Work Level, $\geq 84^{\circ}\text{F}$ for Moderate Work Level, OR $\geq 82^{\circ}\text{F}$ for Heavy Work?	The candidate selects YES (AWBGT 104°F with HEAVY work).	

PROMPT: **IF ASKED** about supervisors encouraging employees to report medical conditions, **INFORM** the candidate that supervisors have encouraged and provided an opportunity to employees to report any medical conditions they may have to Medical Representatives (Per 5.2)
AND
 Employees have identified to the Medical Representative any personal health problem or medication (prescription or over the counter being taken that may adversely affect their health in high temperature environments (Per 5.5)

7.	Is AWBGT $\geq 103^{\circ}\text{F}$?	The candidate selects YES (AWBGT 104°F)	
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8.	Is AWBGT $\geq 103^{\circ}\text{F}$ but $< 108^{\circ}\text{F}$?	The candidate selects YES (AWBGT 104°F)	
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9.	Per 6.1.2.1, must use Engineering control and/or Administrative controls.	The candidate DETERMINES that Engineering control and/or Administrative controls are required to be used.	
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PROMPT: **WHEN ASKED** about Engineering Controls or Admin Controls, **INFORM** the candidate that Admin Controls IAW step 6.3.1.2 are in place :

- o Work is being done in the cool of the morning
- o Power tools are being used
- o Cool fluids available to drink etc.).

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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PROMPT: **IF ASKED** about Heat Stress PPE, **INFORM** the candidate Heat Stress PPE is NOT being used.

**10.	Estimate stay time per 6.3.1.5.	The candidate uses Appendix C to determine the maximum stay time of 15 minutes (accept ± 5 minutes)	
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PROMPT: **IF Operator** does NOT state if stay time is acceptable, **ASK** the Operator if the stay time is acceptable for this job.

**11.	Is stay time acceptable?	The candidate determines that the Estimated Stay Time is NOT acceptable (28 minute job with a 15 minute stay time).	
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12.	Work job/task Calculate Recovery time per 6.3.2.1	The candidate determines that the task may NOT be worked.	
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PROMPT: **IF ASKED** about calculating Recovery time, **INFORM** the candidate Recovery Time will be calculated at a later time.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the Operator when:

- After JPM step #12 is complete.
- With no reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

EVALUATOR – **PICK UP** the Initiating Cue sheet.

(** Indicates critical step)

UNIT 1 & 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. You are a member of a team scheduled to perform work in the Unit 2 Steam Tunnel.
2. The work will be in close proximity to Main Steam Lines which are pressurized with 700 psig steam.
3. Steam Tunnel Temperature is 98°F.
4. Steam Tunnel Humidity is 100%.
5. Worker Clothing: OREX coveralls over Personal modesty garments.
6. The work that is being performed is HEAVY WORK LEVEL.
7. The work will take 28 minutes to complete.

INITIATING CUES:

Use NMP-FLS-002, "Heat Stress" and the information provided to determine BOTH:

- The estimated Adjusted Wet Bulb Globe Temperature (AWBGT)
- AND
- If the STAY TIME for the team members is acceptable to complete the work.

Southern Nuclear E. I. Hatch Nuclear Plant

Operations Training JPM

DRAFT

ADMIN 2 ALL

TITLE		
CONDUCT OF OPERATIONS, 34SV-SUV-019-2 SURVEILLANCE		
AUTHOR	MEDIA NUMBER	TIME
Anthony Ball	2013-301 ADMIN 2	15 Minutes
RECOMMENDED BY	APPROVED BY	DATE
N/R		



SOUTHERN NUCLEAR OPERATING COMPANY	
PLANT E. I. HATCH	Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET	

SOUTHERN NUCLEAR OPERATING COMPANY	
PLANT E. I. HATCH	Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET	

SOUTHERN NUCLEAR OPERATING COMPANY	
PLANT E. I. HATCH	Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET	

Program/Course Code: **OPERATIONS TRAINING** Media Number: **2013-301 ADMIN 2**

Program/Course Code: **OPERATIONS TRAINING** Media Number: **2013-301 ADMIN 2**

[illegible]

UNIT 1 (X) UNIT 2 ()

TASK TITLE:**CONDUCT OF OPERATIONS, 34SV-SUV-019-2
SURVEILLANCE****JPM NUMBER:**

2013-301 ADMIN 2

TASK STANDARD:

This task will be satisfactorily met when the student has completed section 7.4 of 34SV-SUV-019-2, SURVEILLANCE CHECKS, and informed the evaluator that Unit 2 Torus Cooling is required to be placed in service.

TASK NUMBER:**OBJECTIVE NUMBER:****JTA IMPORTANCE RATING:****K/A CATALOG NUMBER:** G2.1.7**RO** 4.40**SRO** 4.70**OPERATOR APPLICABILITY:** Reactor Operator (RO)

GENERAL REFERENCES:	Unit 1
	34SV-SUV-019-2

REQUIRED MATERIALS:	Unit 1
	34SV-SUV-019-2. Calculators

APPROXIMATE COMPLETION TIME: 15 Minutes**SIMULATOR SETUP:** NOT applicable

EVALUATOR COPY

UNIT 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. Unit 2 is operating at 100 % power.
2. 2T48-N303A, Torus Temperature, is out of service and inoperable.
3. 2T48-N308A, Torus Temperature, is out of service and inoperable.
4. 2T48-R647, Torus Bulk Average Temperature, on 2H11-P689 panel is indicating 95.0°F.
5. The Shift Supervisor has directed this surveillance to be completed as a paper version.

INITIATING CUES:

Complete section 7.4 of 34SV-SUV-019-2, SURVEILLANCE CHECKS, which evaluates Torus temperatures,

AND

Determine & Inform the evaluator of Bulk Average Torus Temperature

AND

Any actions (if any) that needs to be taken as a result of Bulk Average Torus Temperature.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. Reference: NMP-TR-111, "On-The-Job Training and Task Performance Evaluation".

PROMPT: **GIVE** the operator an entire copy of 34SV-SUV-019-2.

**START
TIME:** _____

NOTE: When the operator addresses the need for Temperature recorders & SPDS readings provide Attachment 1.

1.	Performs step 7.4.1 of 34SV-SUV-019-2.	From the R627/R627 recorder provided, the operator lists the temperature readings on the surveillance sheet with NO errors for; 2T47-R626, Pt 1, 2T48-N009A 92.5°F Pt 2, 2T48-N009C 92.5°F 2T47-R627, Pt 1, 2T48-N009B 94°F Pt 2, 2T48-N009D 93°F	
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STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
2.	Performs step 7.4.2 of 34SV-SUV-019-2.	The operator evaluates the temperatures from step 7.4.1 and determines the temperature difference to be <3°F AND enters a ✓ OR a 'SAT' per NOTE 'B'.	
**3.	Performs step 7.4.3 of 34SV-SUV-019-2.	The operator calculates the readings in step 7.4.1 and determines the N009A-D average temperature is 93.0°F.	
4.	Performs step 7.4.4 of 34SV-SUV-019-2.	From the SPDS screen provided, the operator records N009 Average temperature reading of 94.0°F.	
5.	Performs step 7.4.5 of 34SV-SUV-019-2.	The operator compares the average temperature reading in step 7.4.3 to the 7.4.4 SPDS N009 reading and concludes the temperatures do NOT differ by more than 2°F AND enters a ✓ OR a 'SAT' per NOTE 'B'.	
6.	Performs step 7.4.6 of 34SV-SUV-019-2.	From the SPDS screen provided, the operator lists the temperature readings on the surveillance sheet with NO errors for; 2T48-N301A 98°F 2T48-N302A 98°F 2T48-N303A INOP 2T48-N304B 100°F 2T48-N305A 98°F 2T48-N306A 100°F 2T48-N307A 98°F 2T48-N308A INOP 2T48-N309A 98°F 2T48-N310A 101°F 2T48-N311A 101°F	

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
7.	Performs step 7.4.7 of 34SV-SUV-019-2.	The operator evaluates the temperatures from step 7.4.6 & step 7.4.3 and determines the temperatute difference to be <10°F AND enters a ✓ OR a 'SAT' per NOTE 'B'.	
**8.	Performs step 7.4.8 of 34SV-SUV-019-2.	The operator calculates the readings in step 7.4.6 and determines the N301-N311 average is 99.1°F.	
9.	Performs step 7.4.9 of 34SV-SUV-019-2.	From the 2T48-R647 recorder provided, the operator lists the 2T48-R647 Torus water temperature reading of 95°F.	

NOTE: The operator may determine 2T48-R647 recorder is inoperable and record Unsat, Inop or may still record the temperature of 95.0°F and then notify the Shift Supervisor. (EITHER is acceptable)

10.	Performs step 7.4.10 of 34SV-SUV-019-2.	From the SPDS screen provided, the operator records SPDS Average Torus water temperature reading of 98°F.	
11.	Performs step 7.4.11 of 34SV-SUV-019-2.	The operator evaluates the temperatures from step 7.4.8 & step 7.4.9 and determines the temperatute difference to be >2°F AND enters an 'UNSAT' per NOTE 'B'.	

NOTE: The operator may inform the Shift Supervisor of the UNSAT item at this time or may continue with completing Section 7.4 and then notify the Shift Supervisor. (EITHER is acceptable)

**12.	Performs step 7.4.12 of 34SV-SUV-019-2.	The operator calculates the Bulk Average Torus temperature using the bottom formula (since 2T48-R647 is inop) to be 96.05°F. (Accept ±1°F due to rounding errors)	
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STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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NOTE: If the operator uses the top formula (R647 operable) then Torus Bulk Average temperature will be calculated (INCORRECTLY) to be 94.0°F.

13.	Performs step 7.4.13 of 34SV-SUV-019-2.	The operator evaluates the temperature difference from steps 7.4.10 & 7.4.12 and determines it to be <2°F AND enters a ✓ OR a 'SAT' per NOTE 'B'.	
**14.	Addresses any additional actions that are required as a result of the Torus Bulk average temperature reading.	The operator determines that 34AB-T23-003-2, TORUS TEMPERATURE ABOVE 95.0°F, IS procedurally required to entered.	

NOTE: At this time, the operator may inform the Shift Supervisor (if NOT previously performed) of the following items:

1. Step 7.4.9, 2T48-R647 is inop, (due to 2T48-N303A & N308A inop & out of service)
2. Step 7.4.8 (average of N301 – N311 temps) NOT within 2°F of step 7.4.9 (2T48-R647, Torus Bulk Avg Temp)
3. Step 7.4.12, Torus Temp is above 95.0°F, entry into 34AB-T23-003-2, TORUS TEMPERATURE ABOVE 95.0°F, IS procedurally required.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the operator when:

- When the operator completes step 14.
- With NO reasonable progress, the operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

DOCUMENT TITLE:
SURVEILLANCE CHECKS

DOCUMENT NUMBER:
34SV-SUV-019-2

VERSION NO:
37.5

NOTE:

IF any of the step 7.4 instruments are inoperable, refer to Attachment 2, Torus Temperature Monitoring.

7.4	PANEL - INSTRUMENT / TECH SPEC.	NOTE	OPER COND	FREQ	T/S OR OPER LIM	NIGHT	DAY
7.4.1	2H11-P657 - 2T47-R626, Pt 1, Torus Water Temp 2T48-N009A - 2T47-R626, Pt 2, Torus Water Temp 2T48-N009C -P650 - 2T47-R627, Pt 1, Torus Water Temp 2T48-N009B - 2T47-R627, Pt 2, Torus Water Temp 2T48-N009D (SR 3.6.2.1.1)	M U V	1,2,3	C	≤ 95°F (T.S. ≤ 100°F)		92.5
							92.5
							94.0
							93.0
7.4.2	Confirm temperatures in 7.4.1 within 3°F (SR 3.3.3.1.1 for 3.3.3.1-1(9.))	B M	1,2,3	C			SAT or ✓
7.4.3	Calculate the average of operable points in 7.4.1.	M	1,2,3	C			93
7.4.4	2T48-N009 Average from SPDS	M	1,2,3	C			94
7.4.5	Confirm temperature in 7.4.3 within 2°F of 7.4.4.	B,M	1,2,3	C			SAT or ✓
7.4.6	SPDS Torus Temperature Diagnostic 2T48-N301A 2T48-N302A 2T48-N303A 2T48-N304B 2T48-N305A 2T48-N306A 2T48-N307A 2T48-N308A 2T48-N309A 2T48-N310A 2T48-N311A	M V	1,2,3	C			98
							98
							Inop
							100
							98
							100
							98
							Inop
							98
							101
7.4.7	Confirm temperatures in 7.4.6 within 10°F of 7.4.3. (SR 3.3.3.1.1 for 3.3.3.1-1(9.))	B, M, II	1,2,3	C			101
7.4.8	Calculate the average of operable points in 7.4.6.	M	1,2,3	C			SAT or ✓
7.4.9	2H11-P689 - 2T48-R647, Torus Avg Bulk Temp (SR 3.6.2.1.1)	M U	1,2,3	C	All items in 7.4.6 must be operable		99.1 95.0 or UNSAT
7.4.10	SPDS Average Torus Water Temperature	M	1,2,3	C	At least nine of 7.4.6 must be operable		98.0
7.4.11	Confirm temperature in 7.4.8 within 2°F of 7.4.9 (SR 3.3.3.1.1 for 3.3.3.1-1(9.))	B,M	1,2,3	C	2T48-R647 must be within 2°F to be operable		UNSAT
7.4.12	Calculate the Torus bulk average temperature $\frac{7.4.3 \text{ \& } 7.4.9}{2}$ <u>OR</u> $\frac{7.4.3 \text{ \& } 7.4.8}{2}$ if 2T48-R647 is inoperable (SR 3.6.2.1.1)	M	1,2,3	C	≤ 95°F (T.S. ≤ 100°F)		96.05
7.4.13	Confirm temperature in 7.4.12 within 2°F of 7.4.10.	B,M	1,2,3	C			SAT or ✓
						Initials	ARB
Calculations verified _____ Date _____ Time _____							1215

OPERATOR COPY

UNIT 2

READ AND GIVE A COPY TO THE OPERATOR

INITIAL CONDITIONS:

1. Unit 2 is operating at 100 % power.
2. 2T48-N303A, Torus Temperature, is out of service and inoperable.
3. 2T48-N308A, Torus Temperature, is out of service and inoperable.
4. 2T48-R647, Torus Bulk Average Temperature, on 2H11-P689 panel is indicating 95.0°F.
5. The Shift Supervisor has directed this surveillance to be completed as a paper version.

INITIATING CUES:

Complete section 7.4 of 34SV-SUV-019-2, SURVEILLANCE CHECKS, which evaluates Torus temperatures,

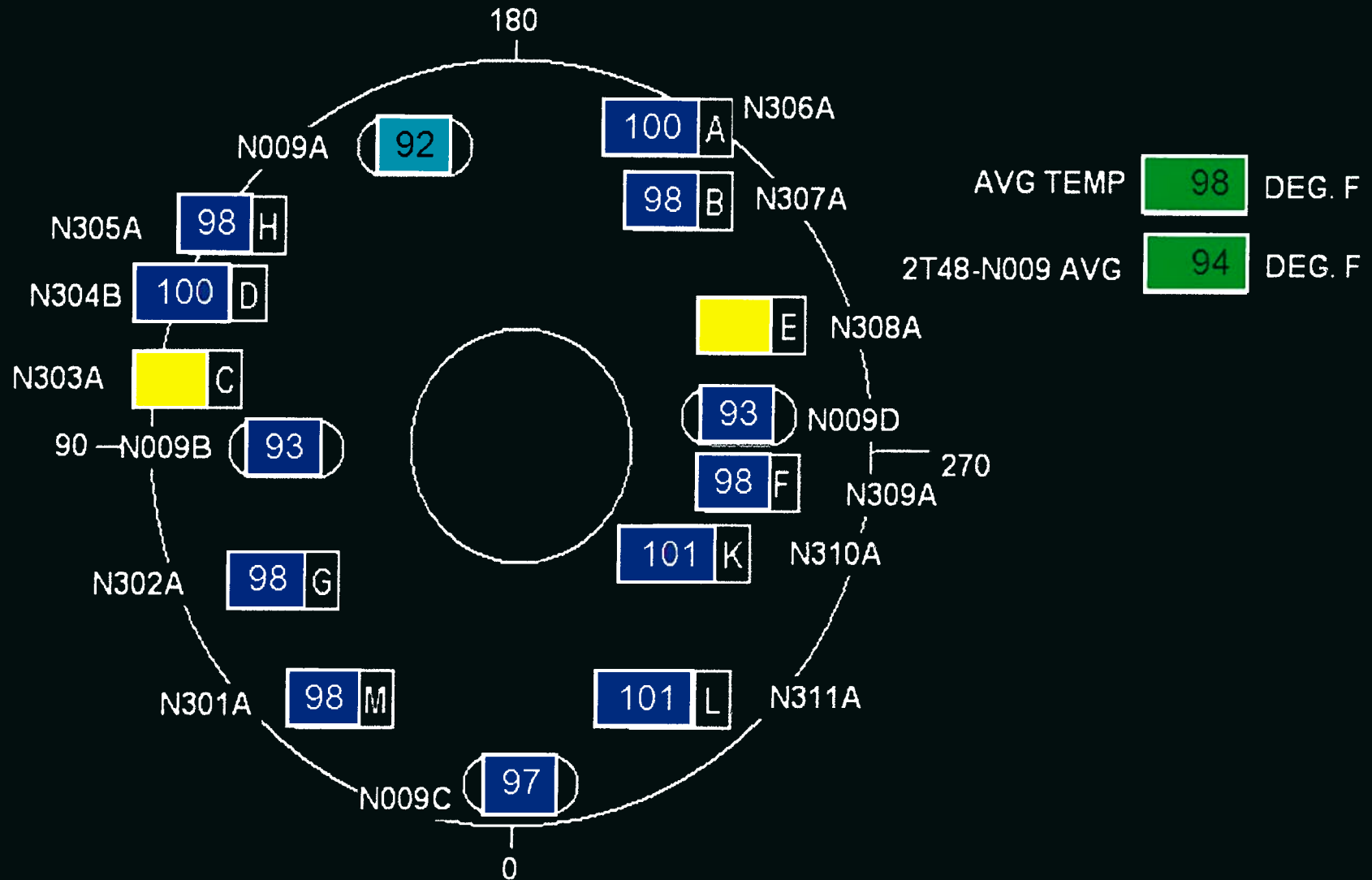
AND

Determine & Inform the evaluator of Bulk Average Torus Temperature
AND

Any actions (if any) that needs to be taken as a result of Bulk Average Torus Temperature.

Unit 2 SPDS

TORUS WATER TEMPERATURE DIAGNOSTIC



2T47-R626

2T47-R626

2T47-R627

PUMP RM COOLERS Apr. 27, 2006 14:15:44 DISP 12day 16/16			
1. TORUS WTR TEMP	2. TORUS WTR TEMP	3. RHR HX OUTLET	4. TORUS AIR TEMP
94.0	93.0	78.1	93.2
5. TORUS AIR TEMP	6. SPARE	7. SUCT OF DW CLG FAN C001A	8. SUCT OF DW CLG FAN B008AB
93.3	0.0	183.2	112.1
9. AMB DW CLG FANS B001AB	10. AMB VESSEL CVTY AT 90°	11. AMB RECIRC PMP MTR A	12. AMB CRD CAVITY
112.2	183.1	110.2	134.9
13. AMB RECIRC PMP MTR B	14. AMBIENT DW SHIELD CAVITY		
112.5	164.9		

Southern Nuclear E. I. Hatch Nuclear Plant

Operations Training JPM

DRAFT

ADMIN 3 SRO-I & SRO-U

TITLE		
Review a Required Action Sheet (RAS) for an inoperable Tech Spec component		
AUTHOR	MEDIA NUMBER	TIME
Anthony Ball	2013-301 ADMIN 3	30.0 Minutes
RECOMMENDED BY	APPROVED BY	DATE



SOUTHERN NUCLEAR OPERATING COMPANY	
PLANT E. I. HATCH	Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET	

SOUTHERN NUCLEAR OPERATING COMPANY	
PLANT E. I. HATCH	Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET	

SOUTHERN NUCLEAR OPERATING COMPANY	
PLANT E. I. HATCH	Page 1 of 1
FORM TITLE: TRAINING MATERIAL REVISION SHEET	

Program/Course Code: **OPERATIONS TRAINING** Media Number: **2013-301 ADMIN 3**

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[illegible]

UNIT 1 () UNIT 2 (X)

TASK TITLE: Review a Required Action Sheet (RAS) for an inoperable Tech Spec component

JPM NUMBER: 2013-301 ADMIN 3

TASK STANDARD: The task shall be completed when the operator has completed review of the highlighted Sections 1 thru 4 of Required Action Sheet, Form 1349; identified the incorrect items and any recommendations for the incorrect items.

TASK NUMBER: OPSR300.027

OBJECTIVE NUMBER: H-OP300.027A

PLANT HATCH JTA IMPORTANCE RATING:

RO N/A

SRO N/A

K/A CATALOG NUMBER: G 2.2.23

K/A CATALOG JTA IMPORTANCE RATING:

RO NA

SRO 4.6

OPERATOR APPLICABILITY: Senior Reactor Operator (SRO)

GENERAL REFERENCES:	Unit 2
	31GO-OPS-006, Conditions, Required Actions and Completion Times OPS-1349 TECH SPECS UNIT 1
REQUIRED MATERIALS:	Unit 2
	UNIT 1 TECH SPECS A completed form OPS-1349 31GO-OPS-006-0 Conditions, Required Actions and Completion Times Inop Status Indicator Picture 2013 Calendar

APPROXIMATE COMPLETION TIME: 30.0 Minutes

SIMULATOR SETUP: NOT Applicable

EVALUATOR COPY

UNIT 1

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. Unit 1 is operating at 100% power.
2. At 0600 on 8/1/13, Plant Service Water (PSW) pump 1B, 1P41-C001B, is declared inoperable due to failing 34SV-P41-001-1.
3. Required Action Sheet form, OPS-1349, has been prepared and is ready for review.
4. All other equipment is operable.
5. Albert R. Bradford is the Shift Supervisor
6. Protected Equipment signs have been posted IAW NMP-OS-010, Protected Train/Division and Protected Equipment Program

INITIATING CUES:

Verify the correctness of ONLY the **HIGHLIGHTED** portions of Sections 1 thru 4 of Required Action Sheet, form OPS-1349, for Unit 1 1P41-C001B, PSW pump 1B.

AND

Inform the Shift Supervisor of your results and any recommendations

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. (AG-TRN-01-0685 Section 6.5.3 provides examples)

**START
TIME:** _____

PROMPT: **PROVIDE** the following to the operator:

- **Attachment 2**, Attached **OPS-1349 Form**
- **31GO-OPS-006-0**, Conditions, Required Actions, And Completion Times
- **Attachment 4**, Calendar

1.	Operator obtains the procedure needed to perform the task.	Operator has obtained 31GO-OPS-006-0, Conditions, Required Actions, And Completion Times & Unit 1 Tech Specs.	SAT / UNSAT
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PROMPT: **WHEN** the Operator indicates looking in the Required Action Tracking Log to confirm the RAS number, **INFORM** that the RAS number has been confirmed.

2.	Evaluates whether RAS number from the Required Action Tracking Log, is correct.	The operator determines that RAS #1-13-067 is CORRECTLY written for step 7.1.1.1.	SAT / UNSAT
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
3.	Locates the appropriate Tech Spec section.	Addresses Unit 1 Tech Spec section 3.7.2 Action A.	SAT / UNSAT
**4.	Evaluates the RAS form section 1 "MPL" number.	The operator determines that 1P41-C001B is CORRECTLY written for step 7.1.1.2.	SAT / UNSAT
5.	Evaluates RAS form section 1 "Description" block.	The operator determines that the Description block is CORRECTLY written for step 7.1.1.2.	SAT / UNSAT
**6.	Evaluates RAS form section 1 "Inoperable" time/date block	The operator determines the "Inoperable Time/Date" block is CORRECTLY written for step 7.1.1.3.	SAT / UNSAT
7.	Evaluates the RAS section 1 "Return to Oper" Time/Date block.	The operator determines the "Return to Oper" Time/Date block is CORRECTLY written and is left blank. (Blank)	SAT / UNSAT
8.	Evaluates the RAS section 1 "Init" block.	The operator determines the "Init" block is CORRECTLY written and is left blank. (Blank)	SAT / UNSAT
**9.	Evaluates the RAS section 2 "Initiation" Time/Date block.	The operator determines the "Initiation" Time/Date block of section 2 is CORRECTLY written for step 7.1.1.6. (0600 & 8/01/13)	SAT / UNSAT

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**10.	Evaluates the RAS section 2 "Req Restoration" Time/Date block.	<p>The operator determines the "Req Restoration" block is NOT CORRECTLY written for step 7.1.1.7.</p> <p>The operator is expected to recommend to the SS the "Req Restoration" block should be "0600 & 8/31/13".</p>	SAT / UNSAT

NOTE: At this time, the operator may elect to inform the Shift Supervisor that the "Req Restoration" block is NOT CORRECTLY written. This action IS acceptable.

It **IS** also acceptable for the operator to complete the review before bringing this to the Shift Supervisor's attention.

PROMPT: IF the operator addresses the incorrect item(s), **DIRECT** the operator to finish the review.

11.	Evaluates the RAS section 2 "Modified Completion" Time/Date.	The operator determines the "Modified Completion" block is CORRECTLY written for step 7.1.1.8. (N/A or Blank is acceptable)	SAT / UNSAT
12.	Evaluates the RAS section 2 "Extended Completion Time/Date/Init" block.	The operator determines the "Extended Completion Time/Date/Init" block in section 2 is CORRECTLY written for step 7.1.1.8. (N/A or Blank is acceptable)	SAT / UNSAT
13.	Evaluates the RAS section 2 "SFDP Entered" block.	The operator determines the "SFDP Entered" block in section 2 is CORRECTLY written for step 7.1.1.9. (N/A)	SAT / UNSAT

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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NOTE: If operator asks to see the Status Indication, hand the operator a picture of the status indicators (**Attachment 3**).

14.	Evaluates the RAS section 2 "INOP Status Indication" block.	The operator determines the "INOP Status Indication Lit" Block is CORRECTLY written for step 7.1.1.10. (Light On)	SAT / UNSAT
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PROMPT: IF asked the status of protected equipment per NMP-OS-010, **INFORM** the operator the required signs have been posted for protected equipment.

**15.	Evaluates the RAS section 2 "Applicability" block.	The operator determines the "Applicability" block of section 2 is CORRECTLY written for step 7.1.1.12. (Modes 1, 2, and 3)	SAT / UNSAT
16.	Evaluates the RAS section 2 "Reference Document" block.	The operator determines the "Reference Document" block of section 2 is CORRECTLY written for step 7.1.1.13. (U1 TS 3.7.2.A or similar wording)	SAT / UNSAT
17.	Evaluates the RAS section 2 "Revision/Amendment" block.	The operator determines the "Revision/Amendment" block of section 2 is CORRECTLY written for step 7.1.1.14. (246)	SAT / UNSAT
**18.	Evaluates the RAS section 2, "Required Action If" block.	<p>The operator determines the "Required Action If" block of section 2 is NOT CORRECTLY written for step 7.1.1.15.</p> <p>The operator is expected to recommend to the SS the "Required Action If" block should be "BE IN MODE 3 IN 12 HRS AND BE IN MODE 4 IN 36 HOURS".</p>	SAT / UNSAT

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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NOTE: At this time, the operator may elect to inform the Shift Supervisor that the "Required Action If" block is NOT CORRECTLY written. This action IS acceptable.

It **IS** also acceptable for the operator to complete the review before bringing this to the Shift Supervisor's attention.

PROMPT: IF the operator addresses the incorrect item(s), **DIRECT** the operator to finish the review.

19.	Evaluates the RAS section 3 " \leq 1 Hour Actions" block.	The operator determines the " \leq 1 Hour Actions" block in section 3 is CORRECTLY written for step 7.1.2. (N/A)	
**20.	Evaluates the RAS section 4, FIRST line for the "Reference Document" block.	<p>The operator determines the FIRST line for the "Reference Document" block in section 4 is NOT CORRECTLY written for step 7.1.3.1.</p> <p>The operator is expected to recommend to the SS the "Reference Document" block should be "TS 3.7.2.A.1" or similar wording.</p>	

NOTE: At this time, the operator may elect to inform the Shift Supervisor that the FIRST line for the "Reference Document" block is NOT CORRECTLY written. This action IS acceptable.

It **IS** also acceptable for the operator to complete the review before bringing this to the Shift Supervisor's attention.

PROMPT: IF the operator addresses the incorrect item(s), **DIRECT** the operator to finish the review.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
21.	Evaluates the RAS section 4, FIRST line for the "Required Action" block.	The operator determines the FIRST line for the "Required Action" block in section 4 is CORRECTLY written for step 7.1.3.2. (Restore PSW pump to OPERABLE status)	SAT / UNSAT
22.	Evaluates the RAS section 4, FIRST line for the "Req Comp Time of Freq" block.	The operator determines the FIRST line for the "Req Comp Time of Freq" block in section 4 is CORRECTLY written per step 7.1.3.3. (30 days)	SAT / UNSAT
23.	Evaluates the RAS section 4, FIRST line for the "Seq No." block.	The operator determines the FIRST line for the "Seq No." block in section 4 is CORRECTLY written per step 7.1.3.3. (N/A or Blank)	SAT / UNSAT
24.	Evaluates the RAS section 4, SECOND line for the "Reference Document" block.	The operator determines the SECOND line for the "Reference Document" block in section 4 is CORRECTLY written for step 7.1.3.1. (TS 3.7.2.F.1)	SAT / UNSAT
25.	Evaluates the RAS section 4, SECOND line for the "Required Action" block.	The operator determines the SECOND line for the "Required Action" block in section 4 is CORRECTLY written for step 7.1.3.2. (BE IN MODE 3)	SAT / UNSAT
**26.	Evaluates the RAS section 4, SECOND line for the "Req Comp Time of Freq" block.	<p>The operator determines the SECOND line for the "Req Comp Time of Freq" block in section 4 is NOT CORRECTLY written per step 7.1.3.3.</p> <p>The operator is expected to recommend to the SS the SECOND line for the "Req Comp Time of Freq" block should be "12 hours".</p>	SAT / UNSAT

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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NOTE: At this time, the operator may elect to inform the Shift Supervisor that the “Req Comp Time of Freq” block is **NOT CORRECTLY** written. This action **IS** acceptable.

It **IS** also acceptable for the operator to complete the review before bringing this to the Shift Supervisor’s attention.

PROMPT: **IF** the operator addresses the incorrect item(s), **DIRECT** the operator to finish the review.

27.	Evaluates the RAS section 4, SECOND line for the “Seq No.” block.	The operator determines the SECOND line for the “Seq No.” block in section 4 is CORRECT per step 7.1.3.3. (N/A or Blank)	SAT / UNSAT
28.	Evaluates the RAS section 4, SECOND line, Logical Connector, for the “Required Action” block.	The operator determines the Logical Connector, for the “Required Action” block in section 4 is CORRECTLY written per step 7.1.3.5. (AND).	
**29.	Evaluates the RAS section 4, THIRD line for the “Reference Document” block.	The operator determines the THIRD line for the “Reference Document” block in section 4 is NOT CORRECTLY written for step 7.1.3.1. The operator is expected to recommend to the SS the THIRD line for the “Reference Document” block should be “TS 3.7.2.F.2” .	SAT / UNSAT

NOTE: At this time, the operator may elect to inform the Shift Supervisor that the THIRD line for the “Reference Document” block is **NOT CORRECTLY** written. This action **IS** acceptable.

It **IS** also acceptable for the operator to complete the review before bringing this to the Shift Supervisor’s attention.

PROMPT: **IF** the operator addresses the incorrect item(s), **DIRECT** the operator to finish the review.

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
30.	Evaluates the RAS section 4, THIRD line for the "Required Action" block.	The operator determines the "Required Action" block in section 4 is CORRECTLY written for step 7.1.3.2. (Be in MODE 4)	SAT / UNSAT
31.	Evaluates the RAS section 4, THIRD line for the "Req Comp Time of Freq" block.	The operator determines the "Req Comp Time of Freq" block in section 4 is CORRECTLY per step 7.1.3.3. (36 hours)	SAT / UNSAT

NOTE: At this time, the operator may inform the Shift Supervisor (if NOT previously performed) that the following items are incorrect:

1. "Required Restoration Time/Date" of Section 2 (should be **0600 / 08-31-13**)
2. "Required Action IF Comp Time Exceeded" of Section 2 (should be **be in Mode 3 in 12 hrs and be in Mode 4 in 36 hours**)
3. FIRST line for the "Reference Document" of Section 4 (should be **TS 3.7.2.A.1**)
4. SECOND line for the "Req Comp Time of Freq" of Section 4 (should be **12 hours**)
5. THIRD line for the "Reference Document" block should be (**TS 3.7.2.F.2**)

END
TIME: _____

NOTE: The terminating cue shall be given to the Operator when:

- When the operator completes step 31.
- With NO reasonable progress, the Operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: That completes this JPM.

(** Indicates critical step)

ATTACHMENT 1

**** KEY ****

DO NOT give this to operator

REQUIRED ACTION SHEET NUMBER **1 - 13 - 067**

SECTION 1

INITIATING CONDITIONS

MPL	DESCRIPTION	INOPERABLE TIME/DATE		RETURN TO OPER TIME/DATE		INIT
1P41C001B	"1B" PSW Pump INOP	0600	08/01/13			
	Failed 34SV-P41-001-1 due to low discharge pressure					

SECTION 2

REQUIRED ACTION SHEET ACTIVATION

INITIATION TIME/DATE: 0600 / 08-01-13		REQ. RESTORATION TIME/DATE: 0600 / 08-31-13		MODIFIED COMPLETION TIME/DATE: N/A or Blank	
EXTENDED COMPLETION TIME/DATE/INIT N/A or Blank	SFDP ENTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	INOP STATUS INDIC LIT <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A		PROTECTED EQUIP POSTED <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	
LICABILITY	MODES 1,2, and 3				
REQ. ACTION IF COMP TIME EXCEEDED	BE IN MODE 3 IN 12 HRS <u>AND</u> BE IN MODE 4 IN 36 HOURS				
REFERENCE DOCUMENT	T.S. 3.7.2.A		REVISION/AMENDMENT 246		
SS SIGN / TSA ACTIVE			SM SIGN		

SECTION 5

REQUIRED ACTION SHEET TERMINATION

INDICATE COMPLETE(D) ACTIONS:			
<input type="checkbox"/> PROCEDURES:			
<input type="checkbox"/> OTHER:			
MWO FT COMPLETE <input type="checkbox"/> YES <input type="checkbox"/> N/A	INOP STATUS INDIC OFF <input type="checkbox"/> YES <input type="checkbox"/> N/A	EQUIP POSTINGS REMOVED <input type="checkbox"/> YES <input type="checkbox"/> N/A	REQUIRED ACTION TERMINATED TIME/DATE: /
SS SIGN / TSA TERMINATED		SM SIGN	

ATTACHMENT 1

**** KEY ****

DO NOT give this to operator

SECTION 3

≤ 1 HOUR ACTIONS

REFERENCE DOCUMENT	REQUIRED ACTION *	REQ. COMP TIME	PERFORMED TIME/DATE	INIT
N/A	N/A	N/A	N/A	N/A
			/	
			/	

SECTION 4

> 1 HOUR ACTIONS

REFERENCE DOCUMENT	REQUIRED ACTION *	REQ. COMP TIME OR FREQ.	SEQ. NO.	COMPLETE TIME/DATE	COMP. INITIAL
TS 3.7.2.A.1	Restore PSW pump to OPERABLE status	30 days	N/A	/	
TS 3.7.2.F.1	Be in MODE 3	12 hours	N/A	/	
	AND				
S 3.7.2.F.2	Be in MODE 4	36 hours	N/A	/	
				/	
				/	
				/	

*ADMIN CONTROL DOCUMENT FOR REQUIRED ACTION OR COMP ACTIONS FOR IDO's if required

APC #
TAGOUT #
REP TASK #
OTHER
REQUIRED ACTION TRACKING SHEET, OPS-1350,

☐
☐
☐
☐
☐

RAS
REFERENCED ON
ADMIN CONTROL
DOCUMENT

____ INIT

LOCKED OR
SIGNED ON
AS HOLDER
FOR eSOMS if
required

____ INIT

FORM TITLE:

REQUIRED ACTION SHEET**REQUIRED ACTION SHEET NUMBER** 1 - 13 - 067**SECTION 1****INITIATING CONDITIONS**

MPL	DESCRIPTION	INOPERABLE TIME/DATE		RETURN TO OPER TIME/DATE		INIT
1P41C001B	"1B" PSW Pump INOP	0600	08/01/13			
	Failed 34SV-P41-001-1 due to low discharge pressure					

SECTION 2**REQUIRED ACTION SHEET ACTIVATION**

INITIATION TIME/DATE: 0600 / 08-01-13		REQ. RESTORATION TIME/DATE: 0600 / 08-30-13		MODIFIED COMPLETION TIME/DATE: N/A			
EXTENDED COMPLETION TIME/DATE/INIT N/A	SFDP ENTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A		INOP STATUS INDIC LIT <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A		PROTECTED EQUIP POSTED <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A		
APPLICABILITY	MODES 1,2, and 3						
REQ. ACTION IF COMP TIME EXCEEDED	RESTORE PSW PUMP TO OPERABLE STATUS IN 30 DAYS						
REFERENCE DOCUMENT	T.S. 3.7.2.A			REVISION/AMENDMENT 246			
SS SIGN / TSA ACTIVE			SM SIGN				

SECTION 5**REQUIRED ACTION SHEET TERMINATION**

INDICATE COMPLETE(D) ACTIONS:			
<input type="checkbox"/> PROCEDURES:			
<input type="checkbox"/> OTHER:			
MWO FT COMPLETE <input type="checkbox"/> YES <input type="checkbox"/> N/A	INOP STATUS INDIC OFF <input type="checkbox"/> YES <input type="checkbox"/> N/A	EQUIP POSTINGS REMOVED <input type="checkbox"/> YES <input type="checkbox"/> N/A	REQUIRED ACTION TERMINATED TIME/DATE: /
SS SIGN / TSA TERMINATED		SM SIGN	

FORM TITLE:

REQUIRED ACTION SHEET**SECTION 3****≤ 1 HOUR ACTIONS**

REFERENCE DOCUMENT	REQUIRED ACTION *	REQ. COMP TIME	PERFORMED TIME/DATE	INIT
N/A	N/A	N/A	N/A	N/A
			/	
			/	

SECTION 4**> 1 HOUR ACTIONS**

REFERENCE DOCUMENT	REQUIRED ACTION *	REQ. COMP TIME OR FREQ.	SEQ. NO.	COMPLETE TIME/DATE	COMP. INITIAL
TS 3.7.2.B.1	Restore PSW pump to OPERABLE status	30 days	N/A	/	
TS 3.7.2.F.1	Be in MODE 3	36 hours	N/A	/	
	AND				
	Be in MODE 4	36 hours	N/A	/	
				/	
				/	
				/	

*ADMIN CONTROL
DOCUMENT FOR
REQUIRED ACTION
OR COMP ACTIONS
FOR IDO's if requiredAPC # ☐
TAGOUT # ☐
REP TASK # ☐
OTHER ☐
REQUIRED ACTION TRACKING
SHEET, OPS-1350, ☐RAS
REFERENCED ON
ADMIN CONTROL
DOCUMENT

____ INIT

LOCKED OR
SIGNED ON
AS HOLDER
FOR eSOMS if
required
____ INIT

**ATTACHMENT 3
PROVIDE TO OPERATOR**

**CORE
SPRAY
I**

**HYDROGEN
CONTROL**

**CORE
SPRAY
II**

**MAIN STEAM
LINE SEAL**

**RHR
I**

**PLANT
SERV WATER
DIVISION I**

**RHR
II**

**DIESEL GEN
IA**

**STBY GAS
TREATMENT
I**

**PLANT
SERV WATER
DIVISION II**

**STBY GAS
TREATMENT
II**

**DIESEL GEN
IB**

HPCI

RCIC

**AUTOMATIC
DEPRESSURE**

**DIESEL GEN
IC**

ATTACHMENT 4
PROVIDE TO OPERATOR

2013

July						
Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

August						
Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

September						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

OPERATOR COPY

UNIT 1

READ AND GIVE A COPY TO THE OPERATOR

INITIAL CONDITIONS:

1. Unit 1 is operating at 100% power.
2. At 0600 on 8/1/13, Plant Service Water (PSW) pump 1B is declared inoperable due to failing 34SV-P41-001-1.
3. Required Action Sheet form, OPS-1349, has been prepared and is ready for review.
4. All other equipment is operable.
5. Albert R. Bradford is the Shift Supervisor
6. Protected Equipment signs have been posted IAW NMP-OS-010, Protected Train/Division and Protected Equipment Program

INITIATING CUES:

Verify the correctness of ONLY the **HIGHLIGHTED** portions of Sections 1 thru 4 of Required Action Sheet, form OPS-1349, for Unit 1 1P41-C001B, PSW pump 1B.

AND

Inform the Shift Supervisor of your results and any recommendations.

Southern Nuclear E. I. Hatch Nuclear Plant

Operations Training JPM

DRAFT

ADMIN 4 RO ONLY

TITLE		
DETERMINE THE EVACUATION ROUTE DURING AN EMERGENCY		
AUTHOR	MEDIA NUMBER	TIME
R. A. BELCHER	2013-301 ADMIN 4	9.0 Minutes
RECOMMENDED BY	APPROVED BY	DATE
N/R		



FORM TITLE: TRAINING MATERIAL REVISION SHEET

Program/Course Code:

Media Number: 2013-301 ADMIN 4

[illegible]

UNIT 1 (X) UNIT 2 (X)

TASK TITLE: DETERMINE THE EVACUATION ROUTE DURING AN EMERGENCY

JPM NUMBER: 2013-301 ADMIN 4

TASK STANDARD: The task shall be completed when the wind direction has been checked and an evacuation route has been determined per 73EP-EIP-005-0 & TRN-0144.

TASK NUMBER: 200.059

OBJECTIVE NUMBER: 200.059.A

PLANT HATCH JTA IMPORTANCE RATING:

RO 3.86

SRO 3.96

K/A CATALOG NUMBER: 295038EA102

K/A CATALOG JTA IMPORTANCE RATING:

RO 3.00

SRO 3.80

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 1 & 2
	73EP-EIP-005-0 (current version) NMP-EP-110 (current version) NMP-EP-110-GL02 (current version) NMP-EP-111 (current version) NMP-EP-111-002 (current version)

REQUIRED MATERIALS:	Unit 1 & 2
	NMP-EP-111 (current version) NMP-EP-111-002 (current version)

APPROXIMATE COMPLETION TIME: 9.0 Minutes

SIMULATOR SETUP: N/A

UNIT 1 & 2

READ TO THE APPLICANT

INITIAL CONDITIONS:

1. A Reactor scram has occurred.
2. Plant conditions have resulted in an Elevated Radioactive release.
3. A Prompt Off-Site Dose Assessment calculation has been performed and an Offsite Release has been verified to be in progress.
4. Peak calculated TEDE is 100 mRem/hr.
5. The Emergency Director (ED) has declared a Site Area Emergency.
6. The ED has directed a PA announcement to be performed in accordance with NMP-EP-111.
7. SPDS is available.

INITIATING CUES:

Your task is to fill out the appropriate form required to make the PA announcement for this emergency IAW NMP-EP-111-002, "EMERGENCY NOTIFICATION NETWORK COMMUNICATOR INSTRUCTIONS – HATCH."

NOTE: Another operator will make the actual page announcement IAW NMP-EP-111 Checklist 1 "Page Announcements."

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. (AG-TRN-01-0685 Section 6.5.3 provides examples)

**START
TIME:** _____

NOTE: The applicant may review NMP-EP-111 Checklist 1 "Page Announcements".

PROMPT: **AT THIS TIME PROVIDE** the applicant with the following:

- o NMP-EP-111-002, "EMERGENCY NOTIFICATION NETWORK COMMUNICATOR INSTRUCTIONS – HATCH."
- AND
- o Also **PROVIDE** the attached SPDS Attachments.

1.	Select correct section of NMP-EP-111-002.	The applicant uses NMP-EP-111-002, Table of Contents and determines that Instruction 5 - Emergency Page Announcement Selection Guidance is the required section.	
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**2.	Select the correct form to use for a Site-Area Emergency announcement.	The applicant uses NMP-EP-111-002, Instruction 5 to determine that "IV. Standard Announcement For Notification Of Site-Area Or General Emergency" (see page 14) is the required form	

NOTE: The applicant may review the NOTES at the top of NMP-EP-111-002, "IV. Standard Announcement For Notification Of SAE Or GE"

3.	IV. a. Refer to "Selection Guidance" information on page 11 to determine the applicable rally point, exit route and evacuation route. Record the applicable information.	The applicant determines that wind direction is required in order to select the correct evacuation route.	
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NOTE: Only one indication must be checked to satisfactorily complete Step 4.

PROMPT: IF the Applicant addresses wind direction at panel 1H11-P689, Y33-S/ZR R604 (WIND SPEED/DIRECTION 23 METER ELEVATION), **INDICATE** for the Applicant that this recorder is **INOPERABLE**.

**4.	Check wind direction.	At panel 1H11-P690, wind direction checked on one of the following: SPDS MIDAS screen OR SPDS MET Data screen	
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(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**5.	Determine the applicable rally point, exit route and evacuation route. Record the applicable information.	<p>The applicant uses "Selection Guidance" information on page 11 to determine:</p> <p><u>Rally point:</u> PESB <u>Exit Route:</u> Main Access Road <u>Evacuation Route:</u> U.S. Highway 1 - South to Appling Co. High School/ Baxley</p> <p>The applicant then RECORDS the information in appropriate section of "IV. Standard Announcement For Notification Of Site-Area Or General Emergency."</p>	

NOTE: If the operator uses the 10 Meter wind direction, the evacuation route will (INCORRECTLY) state "Either direction on U.S. Highway 1 to Toombs Co. High School/Lyons or Appling Co. High School/Baxley."

NOTE: The applicant may select DRILL for item 1. This is ACCEPTABLE practice for the purpose of training evaluations at Hatch.

PROMPT: IF the Applicant addresses contacting Security to activate the PA system in the Simulator and Skills Buildings **INFORM** the Applicant that Security has been directed to activate the PA system in the Simulator and Skills Buildings

PROMPT: IF the Applicant addresses NMP-EP-111 Checklist 1 "Page Announcements," as the Shift Supervisor, **INFORM** the Applicant that this will performed by another Operator.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the Applicant when:

- When the operator completes step 5.
- With no reasonable progress, the Applicant exceeds double the allotted time.
- Applicant states the task is complete.

TERMINATING CUE: We will stop here.

(** Indicates critical step)

EVALUATOR ANSWER KEY

IV. STANDARD ANNOUNCEMENT INSTRUCTIONS FOR SITE-AREA OR GENERAL EMERGENCY

NOTES:

- The appropriate emergency tone and announcement must be made as soon as possible, but not to exceed **15** minutes after the initial emergency declaration
 - The person making this announcement is expected to announce all applicable information.
- a. Refer to "Selection Guidance" information on page 11 to determine the applicable rally point, exit route and evacuation route. Record the applicable information below needed for this announcement.
 - b. Contact Security to direct activation of the Public Address system in the Simulator and Skills Buildings PRIOR to beginning the announcement.
 - c. Perform IAW NMP-EP-111 Checklist 1 "Page Announcements".

(Select one) ☒ **Site-Area Emergency** or ☐ **General Emergency**

1. **ATTENTION ALL PERSONNEL. THIS (☒ IS / ☐ IS NOT) A DRILL. A/AN Site-Area Emergency HAS BEEN DECLARED.**
2. (Select one): **A RADIOLOGICAL RELEASE (☒ IS / ☐ IS NOT) IN PROGRESS.**
3. **ALL EMERGENCY RESPONSE PERSONNEL ARE TO REPORT TO YOUR EMERGENCY RESPONSE FACILITY AND INITIATE EMERGENCY IMPLEMENTING PROCEDURES.**

NOTE:

Announcement of items 4 or 5 may be discontinued upon verification that non-essential personnel have left the plant site.

4. Use if a radiological release **is not** in progress

ALL NON-ESSENTIAL PERSONNEL ARE TO EXIT THE PLANT SITE USING THE MAIN ACCESS ROAD. THE EVACUATION ROUTE IS EITHER DIRECTION ON U. S. HIGHWAY 1.

5. Use if a radiological release **is** in progress

ALL NON-ESSENTIAL PERSONNEL ARE TO EXIT THE PLANT SITE USING (select one):

☒ **THE MAIN ACCESS ROAD,** ☐ **THE ROAD BEHIND THE LOW LEVEL RADWASTE BUILDING,** ☐ **OTHER (specify another exit route) _____.**

AND

THE EVACUATION ROUTE IS (Select one):

☒ **EITHER DIRECTION ON U.S. HIGHWAY 1. REPORT TO THE STATE RECEPTION CENTER AT EITHER TOOMBS CO. HIGH SCHOOL IN LYONS OR APPLING CO. HIGH SCHOOL IN BAXLEY.**

☐ **SOUTH ON U. S. HIGHWAY 1. REPORT TO THE STATE RECEPTION CENTER AT APPLING CO. HIGH SCHOOL IN BAXLEY.**

☐ **NORTH ON U. S. HIGHWAY 1. REPORT TO THE STATE RECEPTION CENTER AT TOOMBS CO. HIGH SCHOOL IN LYONS.**

EVALUATOR ANSWER KEY

SELECTION GUIDANCE FOR STANDARD ANNOUNCEMENT RALLY POINT/SITE EXIT ROUTE/ EVACUATION ROUTE

Is a radiological release in progress? ☒ Yes ☐ No

IF

a. A radiological release Is Not in progress:

THEN

b. The following rally point, site exit route, and evacuation route will be used:

- Rally Point – Plant Entry & Security Building (PESB)
- Site Exit Route – Main Access Road
- Evacuation Route – Either direction on U. S. Hwy 1.

IF

c. A radiological release Is in progress:

THEN

Use the chart below to determine the rally point, site exit route, evacuation route and State Reception Center, based on wind direction.

Consult with Security to determine alternative(s) IF designated rally point and/or site exit route cannot be used. The use of an alternate rally point requires notifying Security and HP prior to making the announcement.

NOTE:

The 15 minute average wind direction information should be read using the meteorological instrumentation that corresponds to the primary release point.

Wind Direction From:	Rally Point:	Site Exit Route:	Evacuation Route/State Reception Center
340° - 60°	Gate 17	Main Access Road	U.S. Highway 1 - North to Toombs Co. High School/Lyons
61° - 110°	PESB	Road behind Low Level Radwaste Building	U.S. Highway 1 - South to Appling Co. High School/ Baxley
111° - 225°	PESB	Main Access Road	U.S. Highway 1 - South to Appling Co. High School/ Baxley
226° - 339°	PESB	Main Access Road	Either direction on U.S. Highway 1 to Toombs Co. High School/Lyons or Appling Co. High School/Baxley

MIDAS INFORMATION

METEOROLOGICAL

10M WIND SPD
1Y33-R601
5.0

100M WIND SPD
1Y33-R603
4.0

10M WIND DIR
1Y33-R601
190

100M WIND DIR
1Y33-R603
250

AMBIENT TEMP
(F) 10M
55

DELTA T
60-10
-0.5

DELTA T
100-10
-1.0

RAINFALL
15 MIN. AVG
.000

RADIOLOGICAL

MAIN STACK

NORMAL RANGE	KAMAN
1D11-K600A	1D11-R631
2.00E 01	5.02E-03

1D11-K600B
1.96E 01

STABILITY CLASS
D

U1 RX. BLDG. VENT

NORMAL RANGE	KAMAN
1D11-K619A	1D11-R631
6.70E 01	5.04E-03

1D11-K619B
6.67E 01

U2 RX. BLDG. VENT

NORMAL RANGE	KAMAN
2D11-K636A	2D11-R631
1.02E 06	5.00E-02

2D11-K636B
1.04E 06

METEROLOGICAL DATA

WIND	(DIRECTION FROM)	15-MIN. AVERAGE	STD-DEV	SPEED	15-MIN. AVERAGE
10 M ELEVATION	190 DEG	189 DEG	12 DEG	1 MPH	0 MPH
60 M ELEVATION	230 DEG	220 DEG	6 DEG	2 MPH	2 MPH
100 M ELEVATION	250 DEG	248 DEG	4 DEG	4 MPH	4 MPH
23 M ELEVATION - BACKUP	250 DEG	252 DEG	4 DEG	2 MPH	2 MPH

TEMPERATURE	15-MIN AVERAGE		
10 M ELEVATION AMBIENT	-30 DEG F	FLOW*	----
10 M ELEVATION AMBIENT - BACKUP	74 DEG F	FLOW	----
10 M DEWPOINT	73 DEG F		----
60 M - 10 M DELTA TEMP.	-10 DEG F	FLOW	-4.1 DEG F
100 M - 10 M DELTA TEMP.	-10 DEG F	FLOW	-2.4 DEG F
45 M - 10 M DELTA TEMP. - BACKUP	1.5 DEG F	FLOW	2.4 DEG F

PERCIPITATION

.00 INCHES SINCE MIDNIGHT

Southern Nuclear E. I. Hatch Nuclear Plant

Operations Training JPM

DRAFT

Admin 5 - ALL

TITLE		
EVALUATE AN RWP AND SURVEY MAP		
AUTHOR	MEDIA NUMBER	TIME
R. A. BELCHER	2013-301 ADMIN 5	10.0 Minutes
RECOMMENDED BY	APPROVED BY	DATE
N/R		



FORM TITLE: TRAINING MATERIAL REVISION SHEET

Program/Course Code: **OPERATIONS TRAINING** Media Number: **2013-301 ADMIN 5**

[illegible]

UNIT 1 () UNIT 2 (x)

TASK TITLE: Comply with radiation work permit requirements during normal or abnormal conditions.

JPM NUMBER: 2013-301 ADMIN 5

TASK STANDARD: The task shall be completed when the operator has determined: the correct survey map, Maximum stay time before dosimetry alarm occurs, and the actions if an alarm occurs on dose accumulated.

TASK NUMBER: N/A

OBJECTIVE NUMBER: N/A

TYPE N/A

PLANT HATCH JTA IMPORTANCE RATING:

RO N/A

SRO N/A

K/A CATALOG NUMBER: G2.3.7

K/A CATALOG JTA IMPORTANCE RATING:

RO 3.5

SRO 3.6

OPERATOR APPLICABILITY: Nuclear Plant Operator (NPO)

GENERAL REFERENCES:	Unit 2
	RWP 13-0004 for Operations HP surveys N.E. Diagonal (U1 & U2) HP surveys S.E. Diagonal (U1 & U2) 60AC-HPX-004-0, Radiation & Contamination Control 60AC-HPX-002, Personnel Dosimetry 34SO-E11-010-2, Attachment 3
REQUIRED MATERIALS:	Unit 2
	RWP 13-0004 for Operations HP surveys N.E. Diagonal (U1 & U2) HP surveys S.E. Diagonal (U1 & U2) 60AC-HPX-004-0, Radiation & Contamination Control 60AC-HPX-002, Personnel Dosimetry 34SO-E11-010-2, Attachment 3

APPROXIMATE COMPLETION TIME: 10 Minutes
SIMULATOR SETUP: N/A

UNIT 2

READ AND GIVE A COPY TO THE OPERATOR

INITIAL CONDITIONS:

- 1 Unit 2 is at 100% power with NO significant problems.
2. 34SV-E11-001-2, Residual Heat Removal Pump Operability, is to be performed this shift on "A" Loop RHR pumps.
3. The current OPS RWP is 13-0004.
4. The RWP and HP Survey Maps are available.

INITIATING CUES:

You are assigned to locally perform the pre-start checks for 34SV-E11-001-2, Residual Heat Removal Pump Operability, "A" loop RHR and are to:

- Determine the correct survey map for "A" loop RHR.
- Calculate the maximum stay time before the DAD alarms on dose accumulated, assuming you:
 - remain near the RHR pumps and
 - are at the highest current General Area Dose Rate
- State your required actions if the DAD alarms on dose accumulated.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **Initial** Operator Programs:

For OJT/OJE; All procedure steps must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. (AG-TRN-01-0685 Section 6.5.3 provides examples)

START TIME: _____

PROMPT: **AT** this time, give the operator the RWP and HP Survey Maps.

**1.	Determine the appropriate survey map.	Operator determines that survey map 94797; U2 N.E. Diag. 87 is the correct map.	SAT / UNSAT
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NOTE: If operator selects the incorrect map, Critical Step #2 will be INCORRECTLY calculated.

**2.	Determine the maximum stay time before the DAD alarms on dose accumulated.	Operator determines the max stay time is 50 minutes.	SAT / UNSAT
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NOTE: Per RWP, DAD set at **25** mr for rounds. Per Survey Map, the max general area dose rate is **30** mr/hr.

**3.	Determine required actions if the DAD alarms on dose accumulated.	Operator determines that immediate exit and HP notification is required.	SAT / UNSAT
-------------	---	--	-------------

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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END
TIME: _____

NOTE: The terminating cue shall be given to the Applicant when:

- After JPM step #3 is complete.
- With NO reasonable progress, the Applicant exceeds double the allotted time.
- Applicant states the task is complete.

TERMINATING CUE: That completes this JPM.

Radiation Work Permit

Plant Hatch

13-0004

ACTIVE

Rev

0

Unit

0

Job
Description

Operations Inspection, Surveillance and Fire Watch - THIS RWP NOT FOR ENTRIES INTO LOCKED HIGH RAD OR VERY HIGH RAD AREAS

Location

GENERAL PLANT LOCATION

HP Coverage Authorization Briefing
INTERMITTENT WORK GROUP CONDITIONAL

Start Date 12/31/2012

End Date 12/31/2013

Job Supv. SOS

Ext. 5959

Radiological Conditions

Refer to current survey of work area.

Dosimetry

DIGITAL ALARMING DOSIMETER (DAD)
WHOLE BODY TLD

Protective Clothing Requirements

REFER TO WORKER/SPECIAL INSTRUCTIONS

Respirators

PAPR

RESP

Usage is Conditional per HP

Tasks

Description	DAD Alarms	
	Dose (mR)	Rate (mR/h)
OPS Rounds, Clearances, Surveil.	25	250
OPS Control Room Activities	10	50
Supervision / Observation	20	100
JPMs /Training Activities	10	80

Instructions

DAD's must be accessible for visual monitoring. Monitor DAD periodically while in the RCA.

Lab Coats, Booties & Gloves allowed for inspections, surveillances per procedure NMP-HP-207.

Lab Coat & Latex gloves are minimum dress requirements for outside person pulling drums.

Unless otherwise specified by HP, full dress is required for contaminated area entry.

Use Cameras in lieu of entry, when possible, to reduce exposure.

Entries into Locked High Rad or Very High Rad areas are not permitted on this RWP.**Personnel performing Inside Rounds training should get on the Operations Rounds task.****Training being performed in High Radiation areas SHALL be on the Operations/Rounds task.****Briefing required prior to entering a High Radiation Area****Dosimetry worn in FME areas must be secured in addition to being placed on a lanyard (e.g. bagging and taping). Lanyards have a breakaway feature; therefore additional securing of dosimetry is needed to prevent lose of the equipment.**

Prepared

Health Physics
Staff

Approved

12/31/2012
by JOREAGIN

Suspended

Terminated

Southern Nuclear E. I. Hatch Nuclear Plant

Operations Training JPM

DRAFT

ADMIN 6 SRO-I & SRO-U

Title: EVALUATE THE NEED FOR/RECOMMEND OFFSITE PROTECTIVE CTIONS		
Author: Anthony Ball	Media Number: 2013-301 ADMIN 6	Time 13.0 Minutes
Reviewed By:		Date:
Reviewed by Instructional Technologist or designee		Date
Approved By		Date

<u>Course Number</u>	<u>Program Name</u> OPERATIONS TRAINING	<u>Media Number</u> 2013-301 ADMIN 6
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Rev. No.	Date	Reason for Revisions	Author's Initials	Sup's Initials
01	09/24/92	General revision and format change	WMM	SMC
02	08/05/94	General revision, word processor change, incorporate change to MIDAS, adjust format	RAB	MMG
03	08/21/96	Format change	RAB	DHG
04	07/03/97	Revised initiating cue and added MIDAS screen.	SCB	DHG
05	03/21/00	Format modification, change time allowance based on running average, change MIDAS form due to revision	RAB	DHG
06	11/06/00	Include objective number	RAB	DHG
07	03/25/02	Include initial operator statement	RAB	RAB
08	03/17/04	Rev to 73EP-EIP-054-0	DNM	DHG
09	06/27/05	Revised Initial License statement for successful completion	RAB	RAB
10	03/21/06	Updated to include latest Midas and ENN form, removed Response Cues	RAB	RAB
11	12/04/06	Updated for NMP-EP-109.	DHG	DHG
12	3/30/11	Updated for reference to NMP-EP-112. Added Human Performance Tools Added where to obtain wind direction from control room indications or ENN form.	JSC/ MMG	BKW
12.1	3/7/12	Revised handout with new version of EN form	SDH	
12.2		Revised to match procedure and retitled JPM to 2013-301 ADMIN 6 for use on ILT-8 NRC Exam. Once NRC Exam is complete it will return to original title.	ARB	

Line Contributors

The following individuals contributed to the development of this lesson plan.

Rev. No.	List of Contributors

UNIT 1 (X) UNIT 2 (X)

TASK TITLE: EVALUATE THE NEED FOR/RECOMMEND OFFSITE PROTECTIVE ACTIONS

JPM NUMBER: 2013-301 ADMIN 6

TASK STANDARD: The task shall be completed when the Protective Action Recommendation has been made per NMP-EP-112.

TASK NUMBER: 201.105 (EP 001.088)

OBJECTIVE NUMBER: 200.105.A

PLANT HATCH JTA IMPORTANCE RATING:

RO 3.00

SRO 3.00

K/A CATALOG NUMBER: 295038EA201

K/A CATALOG JTA IMPORTANCE RATING:

RO 3.30

SRO 4.30

OPERATOR APPLICABILITY: Senior Reactor Operator (SRO)

GENERAL REFERENCES:	Unit 1 & 2
	NMP-EP-112 (current version)

REQUIRED MATERIALS:	Unit 1 & 2
	NMP-EP-112 (current version)

APPROXIMATE COMPLETION TIME: 13.0 Minutes

SIMULATOR SETUP: N/A

UNIT 1 & 2

READ TO THE OPERATOR

INITIAL CONDITIONS:

1. The Prompt Offsite Dose Assessment has just been completed. The EN form has been printed and is available. The MIDAS screen is available.
2. The Dose Assessment Staff is NOT available yet.
3. The Shift Manager has declared a General Emergency due to the release.
4. The release is ongoing and duration is currently unknown.
4. The Shift Manager is performing the functions of the Emergency Director.
5. SPDS is NOT available.
6. No adverse weather conditions exist.
7. No manmade threats, i.e. terrorist threats, exist

INITIATING CUES:

Determine the Protective Action Recommendations for the EPZ only, per NMP-EP-112.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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For **INITIAL** Operator Programs:

For OJT/OJE; ALL PROCEDURE STEPS must be completed for Satisfactory Performance.

For License Examinations; ALL CRITICAL STEPS must be completed for Satisfactory Performance.

	IF	THEN
PASS	<input type="checkbox"/> Human performance tools, safety, PPE met (1), AND <input type="checkbox"/> For initial trg all steps completed correctly OR <input type="checkbox"/> For continuing trg, critical steps (if used) completed correctly	<input type="checkbox"/> Mark the JPM as a PASS
FAIL	<input type="checkbox"/> Above standards not met	<input type="checkbox"/> Mark the JPM as a FAIL

(1) The standard for human performance tools, safety, PPE, and other pertinent expectations is considered met provided any deviations are minor and have little or no actual or potential consequence. Errors may be self-corrected provided the action would not have resulted in significant actual or potential consequences. (AG-TRN-01-0685 Section 6.5.3 provides examples)

**START
TIME:** _____

PROMPT: AT this time, **GIVE** the operator the Emergency Notification Form, and the MIDAS Screen.

1.	Operator reviews the procedure's precautions and limitations.	Operator has reviewed the precautions and limitations.	
**2.	Initiate Attachment 1 section A of NMP-EP-112 and starts the PAR flow chart	The student addresses step A.1 of Attachment 1 and begins the flow chart section of Attachment 1, answering the first decision step of "has a general emergency been declared?" as YES of NMP-EP-112.	

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**3.	Address the decision block of "Is a PUFF release in progress or been terminated that is projected to exceed PAGs".	The student answers this question as " NO ". The ENN form has the release as lasting 4 hours which exceeds the definition of a PUFF release. The student refers to the definition section of NMP-EP-112 for what constitutes a PUFF release as needed.	
**4.	Addresses the decision block of "Is a known Site or Plant Event Underway making Evacuation Dangerous."	The student should answer " NO " based on the initial conditions number.	
**5.	Addresses the decision block "do known offsite conditions make evacuation dangerous"	The student should answer " NO " to this question based on the initial conditions.	
**6.	Addresses the decision block "have doses at or beyond the site boundary been projected to exceed PAGs."	From the projected dose on the ENN form the student should answer this question " YES " and determines that PAR 3 is the required PAR.	
**7.	Addresses Attachment 5 PAR worksheet	Marks the block for PAR 3 and the block Off site Dose Projections > 1 REM TEDE OR 5 REM Thyroid CDE	
**8.	Determines the wind direction and records it on Attachment 5 PAR 3.	At panel 1H11-P690, the operator has DETERMINED wind direction to be from 25° , using one of the following recorders: 1Y33-R601 (10 meter) 1Y33-R602 (60 meter) 1Y33-R603 (100 meter) OR At panel 1H11-P689, the operator has determined wind direction to be from 25° , using recorder 1Y33-R604 (23 meter). OR The Emergency Notification Form.	

(** Indicates critical step)

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
**9.	Determines the affected zones from the Hatch Attachment and records them on Attachment 5.	Determines the affected zones to be evacuated are A, B5, C5, D5, E5, D10, E10, and F10.	
**10.	Provide the information to the ED.	Gives the completed Attachment 5 to the ED.	

PROMPT: **IF** the student asks about supplemental PARs **INFORM** them that supplemental PARs are NOT desired at this time.

PROMPT: **IF** the operator addresses notifications, as the Shift Manager, **INFORM** the operator that another operator will make the State and Local notifications.

**END
TIME:** _____

NOTE: The terminating cue shall be given to the operator when:

- After JPM step #10 is complete.
- With NO reasonable progress, the operator exceeds double the allotted time.
- Operator states the task is complete.

TERMINATING CUE: We will stop here.

STEP #	PERFORMANCE STEP	STANDARD	SAT/UNSAT (COMMENTS)
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*****INSTRUCTOR COPY NOT FOR STUDENT*****

Attachment 5
Figure 1

PAR WORKSHEET

INSTRUCTIONS:

1. Check the box for the applicable PAR (1, 2, 3, or 4).
2. Record the 15 minute average "wind direction from" for the selected PAR.
Use met instrumentation corresponding to primary release point(s) (BWR) OR ground level release (PWR).
3. Use the applicable "**Site Specific**" PAR table (Table 1 or 2) to determine the affected zones.

CAUTION:

PAR Revisions must include previous PARs.

On the ENN Form for the selected PAR:

- Select block 5.B and record the "Evacuate" zones OR select block 5.C and record the "Shelter" zones"
- Select block 5.D
- IF PAR 4 is selected, THEN additionally select block 5.E "Other" and provide "Affected Sectors" and "To Miles"

<input type="checkbox"/> PAR 1	Wind direction from	
	ENN Line 5 [C] Shelter Zones	
	ENN Line 5 [D]	Advise remainder of EPZ to Monitor Local Radio/TV Stations /Tone Alert Radios. Consider the use of KI (Potassium Iodide) in accordance with State Plans and Policy

<input type="checkbox"/> PAR 2	Wind direction from	
	ENN Line 5 [B] Evacuate Zones	
	ENN Line 5 [D]	Advise remainder of EPZ to Monitor Local Radio/TV Stations /Tone Alert Radios. Consider the use of KI (Potassium Iodide) in accordance with State Plans and Policy

<input checked="" type="checkbox"/> PAR 3	Wind direction from	25° NNE
	ENN Line 5 [B] Evacuate Zones	A, B5, C5, D5, E5, D10, E10, F10
	ENN Line 5 [D]	Advise remainder of EPZ to Monitor Local Radio/TV Stations /Tone Alert Radios. Consider the use of KI (Potassium Iodide) in accordance with State Plans and Policy

<input type="checkbox"/> PAR 4	Wind direction from	
	ENN Line 5 [B] Evacuate Zones	
	ENN Line 5 [D]	Advise remainder of EPZ to Monitor Local Radio/TV Stations/ Tone Alert Radios. Consider the use of KI (Potassium Iodide) in accordance with State Plans and Policy
	ENN Line 5 [E] OTHER	Evacuate Affected Sectors _____ to _____ miles

Approval: _____

Emergency Director

Date/Time

(** Indicates critical step)

NUCLEAR POWER PLANT EMERGENCY NOTIFICATION FORM

1. ☒ A. DRILL ☐ B. ACTUAL EVENT

Message #

2. ☒ A. INITIAL ☐ B. FOLLOW-UP

NOTIFICATION: TIME

DATE

AUTHENTICATION #

Batch

Confirmation Phone #

3. EMERGENCY CLASSIFICATION ☐ A. UNUSUAL EVENT ☐ B. ALERT ☐ C. SITE AREA EMERGENCY ☒ D. GENERAL EMERGENCY

BASED ON EAL # EAL DESCRIPTION:

Offsite Dose Resulting from an Actual or Imminent Release of Gaseous Radioactivity Exceeds 1000 mR TEDE OR 5000 mR Thyroid CDE for the Actual or Projected Duration of the Release Using Actual Meteorology.

5. PROTECTIVE ACTION RECOMMENDATIONS ☐ A. NONE

☐ B. EVACUATE ☐ A | ☐ B-05 | ☐ B-10 | ☐ C-05 | ☐ C-10 | ☐ D-05 | ☐ D-10 | ☐ E-05 | ☐ E-10 | ☐ F-05 | ☐ F-10 | ☐ G-10 | ☐ H-10 | ☐ I-10 | ☐ J-10 | ☐ K-10 | ☐ L-10

☐ C. SHELTER ☐ A | ☐ B-05 | ☐ B-10 | ☐ C-05 | ☐ C-10 | ☐ D-05 | ☐ D-10 | ☐ E-05 | ☐ E-10 | ☐ F-05 | ☐ F-10 | ☐ G-10 | ☐ H-10 | ☐ I-10 | ☐ J-10 | ☐ K-10 | ☐ L-10

☒ D. Advise Remainder of EPZ to Monitor Local Radio/TV Stations/Tone Alert Radios for Additional Information and Consider the use of KI (potassium iodide) in accordance with State plans and policy.

☐ E. OTHER

6. EMERGENCY RELEASE ☐ A. None ☒ B. Is Occurring ☐ C. Has Occurred

7. RELEASE SIGNIFICANCE: ☐ A. Not applicable ☐ B. Within normal operating limits ☒ C. Above normal operating limits ☐ D. Under evaluation

8. EVENT PROGNOSIS: ☐ A. Improving ☒ B. Stable ☐ C. Degrading

9. METEOROLOGICAL DATA: Wind Direction from degrees Wind Speed mph

(*May not be available for Initial Notifications) Precipitation Stability Class ☐ A | ☐ B | ☐ C | ☒ D | ☐ E | ☐ F | ☐ G

10. ☒ A. DECLARATION ☐ B. TERMINATION Time Date

11. AFFECTED UNIT(S): ☐ 1 ☒ 2 ☐ All

12. UNIT STATUS:

(Unaffected Unit(s) Status Not Required for Initial Notifications)

A. U1 % Power Shutdown at Time Date

B. U2 % Power Shutdown at Time Date

CHARACTERS: characters left

FOLLOW-UP INFORMATION (LINES 14 through 16 Not Required for Initial Notifications) **EMERGENCY RELEASE DATA. NOT REQUIRED IF LINE 6 A IS SELECTED.**

14. RELEASE CHARACTERIZATION: TYPE: ☒ A. Elevated ☐ B. Mixed ☐ C. Ground

UNITS: ☐ A. Ci ☐ B. Ci/sec ☐ C. uCi/sec

MAGNITUDE: Noble Gases: Iodines: Particulates: Other:

FORM: ☒ A. Airborne Start Time: Date: Stop Time: Date:

☐ B. Liquid Start Time: Date: Stop Time: Date:

15. PROJECTION PARAMETERS: Projection period: Hours Estimated Release Duration: Hours

Projection performed: Time Date Accident Type:

16. PROJECTED DOSE:

DISTANCE	TEDE (mrem)	THYROID CDE (mrem)
Site boundary	<input type="text" value="1.1E+03"/>	<input type="text" value="2.0E+03"/>
2 Miles	<input type="text" value="1.0E+03"/>	<input type="text" value="6.7E+03"/>
5 Miles	<input type="text" value="3.9E+02"/>	<input type="text" value="3.4E+03"/>
10 Miles	<input type="text" value="8.6E+01"/>	<input type="text" value="9.1E+02"/>

17. APPROVED BY: Title: Time: Date: Get Time/Date

NOTIFIED BY: RECEIVED BY: Time: Date:

Site: **PLANT HATCH** Unit: **HT**
 Title: **TOTAL EFFECTIVE DOSE EQUIVALENT (TEDE) RATE**
 Time: **At 0.25 Hour Projection**

Menu: **A Quick Dose Projection**
 Model: **Projected Plume Segment**
 Current Time: **03/15/06 09:05**
 Run Time: **03/15/06 09:04**

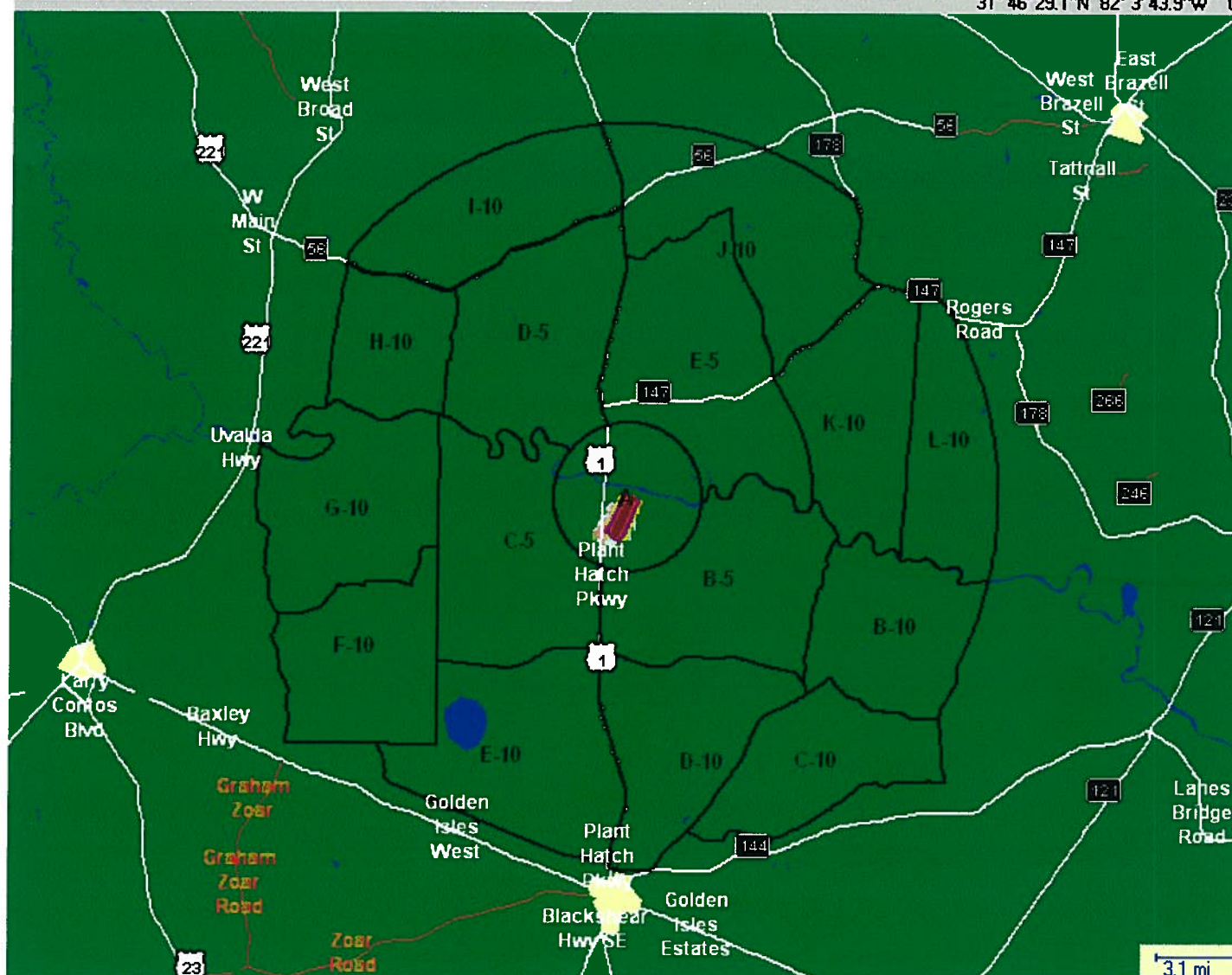
Manual Entry of Met Data
 Current Met:WS (mph):**5.0** WD (from):**25°** ST:**D**

End Date of 15 Minute Rate
 Computation: **03/15/06 09:08**
 Start of Release: **03/15/06 08:53**
 End of Release: **03/15/06 09:08**

Manual Entry of Monitor data
 Current Release Rate (Ci/sec): **9.8E+01**
 Total Ci: NG: **8.7E+04** I: **1.1E+03** P: **0.0E+00**

Peak values
 Peak TEDE (mrem/hr): **2.5E+02**
 Dir (to): **SSW** Dist (miles): **1.0**
 Peak THY CDE (mrem/hr): **3.3E+02**
 Dir(to): **SSW** Dist (miles): **1.1**
 TEDE/EDE at Peak TEDE: **1.0E+00**

Contour Legend	Dose Rate (mrem/hr)
1	1.0E+02 +
2	5.0E+01 - 1.0E+02
3	1.0E+01 - 5.0E+01
4	5.0E+00 - 1.0E+01
5	1.0E+00 - 5.0E+00
6	1.0E-01 - 1.0E+00
7	1.0E-02 - 1.0E-01
8	1.0E-03 - 1.0E-02
9	1.0E-04 - 1.0E-03
10	1.0E-05 - 1.0E-04
11	1.0E-06 - 1.0E-05
12	1.0E-07 - 1.0E-06



End Run	POI	TEDE	Thyroid CDE	EDE	Field Monitors	Population Dose	Plume Tracks	Special Reports	Ingestion Pathway	X/Q	13 Miles	
Map Features	Zoom Out	Dose Rate	Exposure 4hr	Table	Gamma + Beta			State SNC	I-131	Air Conc	Undep. listed	Confirm