

INITIAL SUBMISSION OF THE ADMINISTRATIVE JPMS

FOR THE PALISADES EXAMINATION - DECEMBER 2001

Facility: **PALISADES**
Examination Level : **RO**

Date of Examination: **DEC 2001**
Operating Test Number: **1**

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	CONDUCT OF OPERATIONS	Determine FW Reserve Inventory
		Perform a Heat Balance Calculation Using the PPC
A.2	EQUIPMENT CONTROL	Develop Caution Tags for Pump
A.3	RADIATION CONTROL	Two ALARA/Radiation Protection Questions
A.4	EMERGENCY PLAN	Obtain Met. Data for Emerg. Notification Form

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO - A.4

**TITLE: Obtain Meteorological Data for
Emergency Notification Form**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Obtain Meteorological Data for Emergency Notification Form

Alternate Path: N/A

Facility JPM #: JPM RO-A.4/2000NRC

K/A: 2.4.39 Importance: SRO: RO: 3.3

K/A Statement: Knowledge of the RO's responsibilities in emergency plan implementation.

Task Standard: EI-3.0, Attachment 1, Section 6, Items A, B, and C are completed.

Preferred Evaluation Location: Simulator X In Plant

Preferred Evaluation Method: Perform X Simulate

References: EI-3.0, Communications and Notifications
EI-6.0, Offsite Dose Calculation and Recommendations for Protective Actions

Validation Time: 5 minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT UNSAT

Comments:

Examiner: _____
Signature

Date: _____

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The Shift Supervisor, acting as the Site Emergency Director, has declared an Alert condition. A thunderstorm is in progress

INITIATING CUES:

The Shift Supervisor has directed you to obtain the necessary Meteorological Data required to be entered on EI-3, Attachment 1, Emergency Notification Form, Section 6, Items A, B, and C.

START TIME: _____

STEP / STANDARD		Grading
Step 1: Obtains current copy of attachment. Standard: Obtains copy of EI-3, Attachment 1, Emergency Notification Form Notes: NOTE: May consult EI-6.7, Section 5.1, for instructions on how to operate Met Data Display on PPC, but this is NOT required. Comments:	S____ U____	
Step 2: Locates PPC display containing Meteorological Data. Standard: Goes to PPC Page 351 to obtain data. Notes: Comments:	S____ U____	
Step 3: Records proper Wind Direction. Standard: Records proper Wind Direction as from 330° to 150°. Notes: Critical step to enter proper wind direction. Comments:	S____ U____	
Step 4: Records proper Wind Speed. Standard: Records Wind Speed as 10 mph. Notes: Critical step to enter proper wind speed. Comments:	S____ U____	

STEP / STANDARD		Grading
Step 5: Records proper Stability Class. Standard: Records Stability Class as Class D. Notes: Comments:		S____ U____
Step 6: Record downwind sectors. Standard: Records 3 downwind sectors. Notes: <i>Critical to enter correct downwind sectors.</i> Comments:		S____ U____
Step 7: Completes entering data in Attachment 1. Standard: Completes entering data in Attachment 1, Section 6, Items A, B, C, D, and E and returns to Shift Supervisor Notes: Comments:		S____ U____
<p style="text-align: center;">END OF TASK</p>		

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

The Shift Supervisor, acting as the Site Emergency Director, has declared an Alert condition. A thunderstorm is in progress.

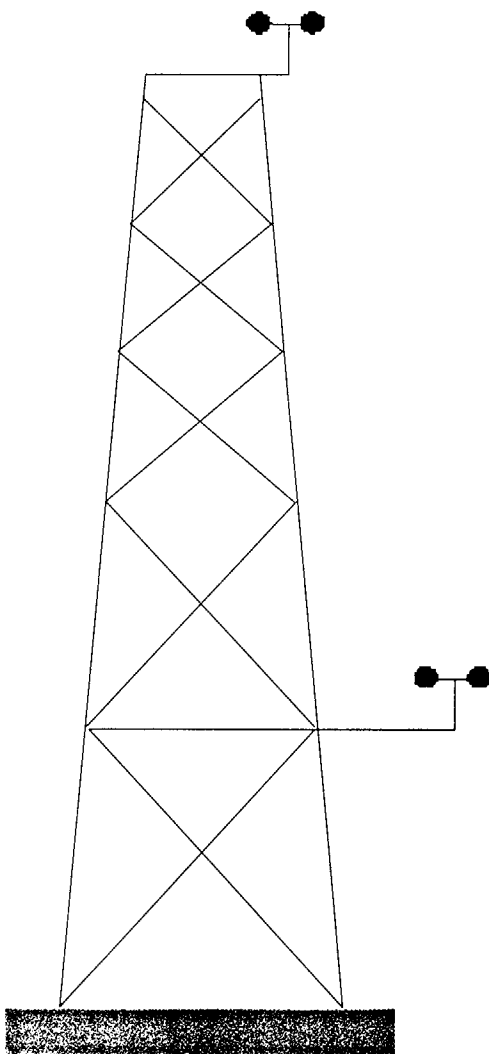
INITIATING CUES:

The Shift Supervisor has directed you to obtain the necessary Meteorological Data required to be entered on EI-3, Attachment 1, Emergency Notification Form, Section 6, Items A, B, and C.

SIMULATOR OPERATOR INSTRUCTIONS

1. Reset to IC-11.
2. Ensure Met Data on PPC 351 lists the following data:
 - * Wind Direction = from 330° to 150°
 - * Wind Speed = 10 mph
 - * Stability Class = D

Note: If the above parameters are not shown on PPC 351, select another IC that uses these parameters, OR, if possible, modify the parameters on the PPC 351 to reflect those given.



HEIGHT 60 METERS

WIND DIRECTION (from) 330 CIRCULAR DEGREES
STD DEVIATION 4 CIRCULAR DEGREES
WIND SPEED 10 MPH

DELTA TEMPERATURE 0 DEG C
STABILITY D PASQ

HEIGHT 11 METERS

WIND DIRECTION (from) 330 CIRCULAR DEGREES
(to) 150 CIRCULAR DEGREES
STD DEVIATION 4 CIRCULAR DEGREES
WIND SPEED 10 MPH
TEMPERATURE 17 DEG C
62 DEG F

DOWNWIND SECTORS

A	B	C	D	E	F	G	H
J	K	L	M	N	P	Q	R

EMERGENCY NOTIFICATION FORM

Attachment 1
Revision 18
Page 1 of 1

REQUIRED INFORMATION

- Approval: _____ Date: _____ Time: _____
- ☐ This is a drill. ☐ This is not a drill.
- From: ☐ CR ☐ TSC ☐ EOF
1. To: ☐ County Name: _____ Time: _____
☐ State Name: _____ Time: _____
☐ NRC Name: _____ Time: _____
2. PALISADES 2A. PLANT MESSAGE NUMBER _____
3. CLASS OF EMERGENCY
A. ☐ Unusual Event B. ☐ Alert C. ☐ Site Area Emergency D. ☐ General Emergency
E. This classification declared by Plant at: Time: _____ Date: _____
F. Initiating Conditions/Description of Event: _____
4. PLANT STATUS
A. ☐ Stable B. ☐ Degrading C. ☐ Improving
D. Additional Information: _____
5. RADIOLOGICAL RELEASE IN PROGRESS: ☐ YES ☐ NO
6. METEOROLOGICAL DATA
A. Wind Direction, Degrees From: _____ To: _____ B. Wind Speed, MPH: _____ C. Stability Class: _____
D. Three Downwind Sectors: _____ E. Precipitation: ☐ YES ☐ NO
7. PROTECTIVE ACTION RECOMMENDATIONS
A. ☐ YES ☐ NO
Note: If YES fill in following information.
B. PAR based on: ☐ Dose Calculations ☐ Plant Status ☐ Other _____
C. In-place Shelter (Areas) _____
D. Evacuation (Areas) _____

AS AVAILABLE

8. RADIOLOGICAL RELEASE DATA
A. Time release started _____ Projected duration of release _____
B. ☐ Airborne ☐ Waterborne ☐ Waterborne Analysis Attached
C. Effluent Points _____
D. Noble gas release rate, Ci/sec _____ Sample _____ Monitor _____ Estimate _____
E. Average energy per disintegration, MeV _____ Sample _____ Monitor _____ Estimate _____
F. Equivalent I-131 release rate, Ci/sec _____ Sample _____ Monitor _____ Estimate _____
G. Particulate release rate Ci/sec _____ Sample _____ Estimate _____
9. CALCULATED OFFSITE DOSES
A. ☐ Actual ☐ Potential
B. Based on: ☐ Monitor (in Plant) ☐ Sample (in Plant) ☐ Back Calculation from field data ☐ Other Plant Conditions
C. Calculated Dose Rate (mrem/hr)
Time of Calculation _____ TEDE (mrem/hr) Adult Thyroid CDE (mrem/hr)
Distance _____
Site Boundary _____
2 Miles _____
5 Miles _____
10 Miles _____
D. Calculated Accumulated Dose (mrem)
Calculated Duration, Hours _____ TEDE (mrem) Adult Thyroid CDE (mrem)
Distance _____
Site Boundary _____
2 Miles _____
5 Miles _____
10 Miles _____
E. Sectors Affected _____
10. MEASURED OFFSITE DOSE RATES
A. Distance Time Reading (mR/hr) Affected Sector
Site Boundary _____
_____ miles _____
_____ miles _____
_____ miles _____
B. Additional Information _____

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO - A.3

TITLE: Radiation Control (Questions)

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Knowledge of Radiation Protection (405 003 01 01)

Alternate Path: N/A

Facility JPM #: NEW

K/A: 2.3.4 / 2.3.1 Importance: SRO: RO: 2.5 / 2.6

K/A Statement: Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized.

Knowledge of 10CFR: 20 and related facility radiation control requirements.

Task Standard: Correctly respond to administrative questions.

Preferred Evaluation Location: Simulator _____ In Plant _____

Preferred Evaluation Method: Perform ___N/A___ Simulate _____

References: Admin Proc 7.13 and 7.15

Validation Time: ___10___ minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT _____ UNSAT _____

Comments:

Examiner: _____ Date: _____
Signature

JPM QUESTION #1

REFERENCE ALLOWED: $\frac{\text{X}}{\text{YES}}$ / $\frac{\quad}{\text{NO}}$

Question: Upon exiting a Contaminated Area (CA) you are preparing to perform a Whole Body Frisk. After verifying the frisker is on the X1 scale, you note that the background level indicates approximately 250 cpm.

During the frisk, you note an area on your left wrist that indicates 380 cpm.

What action(s) should you take?

Answer: Per Admin Proc 7.15, Attachment 3, item 3 the worker should remain in the area and notify Radiation Safety for assistance.

CANDIDATE'S RESPONSE

Time: 5 minutes

K/A: 2.3.4 (Importance - 2.5)

JPM QUESTION #2

REFERENCE ALLOWED: $\frac{\text{X}}{\text{YES}}$ / $\frac{\quad}{\text{NO}}$

Question: An emergency condition requires you to enter the Radwaste Panel C-40 area.

What is the MINIMUM dosimetry required for you to wear?

Answer: Per Admin Proc 7.13, Section 8.4.1, the minimum required is a Primary TLD.

CANDIDATE'S RESPONSE

Time: 5 minutes

K/A: 2.3.1 (Importance - 2.6)

JPM QUESTION #1

CANDIDATE COPY

REFERENCE ALLOWED: $\frac{\text{X}}{\text{YES}}$ / $\frac{\quad}{\text{NO}}$

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF ANSWER)

Question: Upon exiting a Contaminated Area (CA) you are preparing to perform a Whole Body Frisk. After verifying the frisker is on the X1 scale, you note that the background level indicates approximately 250 cpm.

During the frisk, you note an area on your left wrist that indicates 380 cpm.

What action(s) should you take?

JPM QUESTION #2

CANDIDATE COPY

REFERENCE ALLOWED: $\frac{\text{X}}{\text{YES}}$ / $\frac{\quad}{\text{NO}}$

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF ANSWER)

Question: An emergency condition requires you to enter the Radwaste Panel C-40 area.

What is the MINIMUM dosimetry required for you to wear?

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO - A.2

TITLE: Develop Caution Tags for Pump

CANDIDATE: _____

EXAMINER: _____

EVALUATOR SPECIAL INSTRUCTIONS:

- Provide candidate with a partially filled out Caution Tag Log per Admin Proc 4.02 listing one other CR related series of Caution Tags previously hung and still installed.
- Ensure required blank Caution Tags are available to be completed by the candidate.
- Properly completed tags and index are included with JPM.

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Charging Pump P-55C breaker 52-1105 has been racked to the DISCONNECT position due to an Auxiliary Operator's report of excessive pump vibration.

INITIATING CUES:

The Shift Supervisor has directed you to develop the necessary Caution Tags to place on handswitch 52-1105CS on C-02 for P-55C and on breaker 52-1105 on LCC 11.

P-55C is only to be used with Shift Supervisor permission for emergency conditions if P-55A and P-55B are both unavailable.

Work Request Number 279868 has been initiated to troubleshoot and repair the pump. Initiation of a Condition Report is not required at this time.

START TIME: _____

STEP / STANDARD		Grading
Step 1: Locates procedure to caution tag P-55C. Standard: Locates Admin 4.02 and refers to Sections 10.2.1, 10.2.2, and Attachment 4. Notes: <i>It is NOT required that the candidate actually refer to and open the procedure, but may do so.</i> Comments:		S____ U____
Step 2: Obtain proper type of Caution Tag for use on control panels. Standard: Obtains Caution Tag Form 3188. Notes: <i>If none available, and candidate explains how to normally obtain proper type of Caution Tag, provide Caution Tag Form 3188</i> Comments:		S____ U____
Step 3: Obtain proper type of Caution Tag for breaker 52-1105. Standard: Obtains Caution Tag Form 350. Notes: <i>If none available, and candidate explains how to normally obtain proper type of Caution Tag, provide Caution Tag Form 350.</i> Comments:		S____ U____

<p>Step 4: Obtain next available Serial Number from Caution Tag Log.</p> <p>Standard: Obtains Serial Number 01-CR-153-2 from Caution Tag Log, records in Caution Tag Log and on both Caution Tags to be installed, except that one of the tags is listed as 01-CR-153-1, and the other is listed as 01-CR-153-2.</p> <p>Notes: <i>Steps 4 through 8 may be performed in any order.</i></p> <p>Comments: <i>All entries may be performed on either the Control Room Caution Tag Logsheet OR the Feedwater Purity Bldg. logsheet.</i></p>	<p>S____</p> <p>U____</p>
<p>Step 5: Make entry for individual hanging the tags.</p> <p>Standard: Candidate enters his name in "Tag Placed; By" space on Caution Tag Logsheet, and on both Caution Tags to be installed.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 6: Enters equipment designator.</p> <p>Standard: Enters "P-55C C/S," "P-55C H/S," or "52-1105 C/S" AND "52-1105" in Block 3 of Caution Tag Log, enters "52-1105" on the front of Form 350, and enters "P-55C C/S," "P-55C H/S," or "52-1105 C/S" on the front of Form 3188.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

<p>Step 7: Enters AMMS designator for system in Caution Tag Log.</p> <p>Standard: Enters "CVC" in lower left corner of Block 3 of Caution Tag Log.</p> <p>Notes: <i>May obtain from computer or any other available source.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 8: Enters special instructions and/or reason for tagging equipment.</p> <p>Standard: Enters "Only operate in emergency" (or similar) in Caution Tag Log Block 4, on front of Form 350 and Form 3188 and "excessive vibration" (or similar) in Caution Tag Log Block 4, on front of Form 350 and on Form 3188</p> <p>Notes: <i>Candidate may place "S.S." in "Authorized By" block of Form 350. This block is not required to be filled out for successful task completion.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 9: Enters Work Request number in Caution Tag Log</p> <p>Standard: Enters Work Request number "279868" in Block 5 of Caution Tag Log</p> <p>Notes: <i>Critical step to identify associated work to repair pump.</i></p> <p><i>NOTE: Work Request number given in initial conditions.</i></p> <p><i>CUE: If candidate indicates that Caution Tag number is to be included on Work Request, inform candidate that it will be performed by another crew member.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

Step 10:	Informs Shift Supervisor that Caution Tags are ready to be installed.	S _____ U _____
Standard:	Informs Shift Supervisor that Caution Tags are ready to be installed.	
Notes:		
Comments:	END OF TASK	

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

Charging Pump P-55C breaker 52-1105 has been racked to the DISCONNECT position due to an Auxiliary Operator's report of excessive pump vibration.

INITIATING CUES:

The Shift Supervisor has directed you to develop the necessary Caution Tags to place on handswitch 52-1105CS on C-02 for P-55C and on breaker 52-1105 on LCC 11.

P-55C is only to be used with Shift Supervisor permission for emergency conditions if P-55A and P-55B are both unavailable.

Work Request Number 279868 has been initiated to troubleshoot and repair the pump. Initiation of a Condition Report is not required at this time.

SIMULATOR OPERATOR INSTRUCTIONS

Any IC.

Rackout to DISCONNECT breaker 52-1105 for Charging Pump P-55C.
Ensure RED and GREEN lights OFF.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO - A.1-1

**TITLE: Determine Feedwater Reserve
Inventory**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Determine Feedwater Reserve Inventory

Alternate Path: N/A

Facility JPM #: TBAA-01

K/A: E06EA2.1 Importance: SRO: RO: 2.8

K/A Statement: Ability to determine and interpret the following as they apply to the Loss of Feedwater: Facility conditions and selection of appropriate procedures during abnormal and emergency conditions.

Task Standard: Accurate calculation of available feedwater reserve inventory.

Preferred Evaluation Location: Simulator ☒ In Plant ☐

Preferred Evaluation Method: Perform ☒ Simulate ☐

References: EOP Supplement 2

Validation Time: 15 minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT ☐ UNSAT ☐

Comments:

Examiner: _____ Date: _____
Signature

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

While the plant was at 100% power a condensate system piping rupture occurred. The reactor was manually tripped and the operators transitioned to EOP 8.0. The following plant conditions exist:

- MCC 6 is out of service for a ground.
- It is 4 hours after shutdown.
- T-81 to T-2 transfer is available, but not in progress.
- Bus 1A and 1B did not fast transfer.
- T-2 is at 80%, T-81 is at 60%, and T-939 is at 68%.
- Tc's are stable at 530°F

INITIATING CUES:

The Shift Supervisor has directed you to complete EOP Supplement 2, PCS Cooldown Strategy. Calculation of minimum cooldown rate is NOT required at this time (Section 6.0)

START TIME: _____

STEP / STANDARD		Grading
Step 1: Enter "T-2 Inventory" curve with Condensate Storage Tank T-2 level and determine available T-2 inventory. Standard: T-2 inventory is listed as 90,000 gallons. (89-91 allowed). Notes: <i>Critical step to accurately determine inventory.</i> Comments:		S____ U____
Step 2: Determine other sources that can be taken credit for as a source of available inventory. Standard: T-939 is available. Notes: <i>Critical step to ensure that only available sources are considered.</i> Comments:		S____ U____
Step 3: Determine "T-939 Inventory" Standard: T-939 inventory determined to be 190,000 gal. (188-192 allowed.) Notes: <i>Critical step to accurately determine inventory.</i> Comments:		S____ U____
Step 4: Add the results of Steps 1 and 2. Standard: Total determined as 280,000 gal. (278-282 allowed.) Notes: Comments:		S____ U____

STEP / STANDARD		Grading
Step 5: Determine present highest PCS Loop Tc (Tc initial). Standard: Tc initial is ~530°F. Notes: Comments:		S____ U____
Step 6: Enter "Sensible Heat Removal" curve with data from above step and determine inventory required to remove sensible heat. Standard: Inventory required is 41,000 gal. (40-42 allowed). Notes: <i>Critical step to accurately determine required inventory.</i> Comments:		S____ U____
Step 7: Determine inventory available to remove decay heat. Standard: Inventory available is 239,000 gal. (237-241 allowed). Notes: <i>Critical step to accurately determine inventory required.</i> Comments:		S____ U____
Step 8: Enter applicable "Decay Heat Removal" curve for number of PCPs operating with elapsed time after shutdown and result of step above to determine Time Interval for heat removal. Standard: Time interval is >32 hrs. (Interpolation not required.) Notes: <i>Critical step to accurately determine time interval.</i> Comments:		S____ U____

STEP / STANDARD	Grading
<p>Step 9: Notify Shift Supervisor of completion.</p> <p>Standard: Notifies Shift Supervisor that the time interval is > 32 hrs.</p> <p>Notes:</p> <p>Comments:</p> <p style="text-align: center;">END OF TASK</p>	<p>S_____</p> <p>U_____</p>

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

While the plant was at 100% power a condensate system piping rupture occurred. The reactor was manually tripped and the operators transitioned to EOP 8.0. The following plant conditions exist:

- MCC 6 is out of service for a ground.
- It is 4 hours after shutdown.
- T-81 to T-2 transfer is available, but not in progress.
- Bus 1A and 1B did not fast transfer.
- T-2 is at 80%, T-81 is at 60%, and T-939 is at 68%.
- Tc's are stable at 530°F

INITIATING CUES:

The Shift Supervisor has directed you to complete EOP Supplement 2, PCS Cooldown Strategy. Calculation of minimum cooldown rate is NOT required at this time (Section 6.0)

SIMULATOR OPERATOR INSTRUCTIONS

No special simulator setup required.



PALISADES NUCLEAR PLANT EMERGENCY OPERATING PROCEDURE

Proc No	EOP Supplement
Supplement	2
Revision	6
Page	1 of 11

TITLE: PCS Cooldown Strategy

1.0 CONDENSATE STORAGE TANK T-2

1. **DETERMINE AND RECORD** Condensate Storage Tank T-2 level using the "T-2 Inventory" curve:

T-2 inventory = _____ gallons

2.0 DEMINERALIZED WATER TANK T-939

1. IF any of the following conditions exist:

- P-936 is transferring water to T-2
- P-936 is capable of transferring water to T-2
- ONP-2.1, Attachment 2, "Restoring P-936 to Service During Loss of Offsite Power" has been completed

THEN Demineralized Water Tank T-939 is available.

2. IF Demineralized Water Tank T-939 is available, THEN DETERMINE AND RECORD Demineralized Water Tank T-939 inventory using the "T-939 Inventory" curve.

T-939 inventory = _____ gallons

3. IF Demineralized Water Tank T-939 is available, THEN DISREGARD Primary System Makeup Tank T-81 inventory AND GO TO Step 4.0.

3.0 PRIMARY SYSTEM MAKEUP TANK T-81

1. IF any of the following conditions exist:

- P-79A or P-79B is in service transferring water to T-2 per SOP-12, Section 7.6.4
- T-81 gravity feed to T-2 is aligned per the in-use EOP or SOP-12, Section 7.6.5

THEN Primary System Makeup Tank T-81 is available.



PALISADES NUCLEAR PLANT EMERGENCY OPERATING PROCEDURE

Proc No	EOP Supplement
Supplement	2
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TITLE: PCS Cooldown Strategy

2. IF Primary System Makeup Tank T-81 is available, THEN DETERMINE Primary System Makeup Tank T-81 inventory using "T-81 Inventory" curve.

T-81 inventory = _____ gallons

4.0 DETERMINE THE TOTAL INVENTORY

1. **ADD** the available tank inventories:

$$\begin{array}{ccccccc} \text{_____} & + & \text{_____} & + & \text{_____} & = & \text{_____} \\ \text{(Step 1.1 T-2 Inventory)} & & \text{(Step 2.2 T-939 Inventory)} & & \text{(Step 3.2 T-81 Inventory)} & & \text{(Total Inventory)} \end{array}$$

5.0 DETERMINE COOLDOWN RATE

1. **DETERMINE AND RECORD** present highest PCS Loop T_c (T_c Initial):

T_c Initial = _____ °F

2. **DETERMINE AND RECORD** inventory required to remove sensible heat using " T_c Initial" temperature and the "Sensible Heat Removal" curve:

Required Sensible Heat Removal Inventory = _____ gallons

3. **SUBTRACT** Step 5.2 results from Step 4.1 results:

$$\begin{array}{ccccc} \text{_____} & - & \text{_____} & = & \text{_____} \\ \text{(Step 4.1 Total Feedwater Inventory)} & & \text{(Step 5.2 Inventory required to remove sensible heat)} & & \text{(Inventory Available to remove decay heat)} \end{array}$$

4. **DETERMINE AND RECORD** the time interval available for heat removal using the following:

- Applicable "Decay Heat Removal" curve for the number of PCPs operating
- Graph line for the elapsed time after shutdown
- Amount of inventory available to remove decay heat (graph)

Time interval available for heat removal = _____ hours



PALISADES NUCLEAR PLANT EMERGENCY OPERATING PROCEDURE

Proc No	EOP Supplement
Supplement	2
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TITLE: PCS Cooldown Strategy

5. IF the time interval available for heat removal is less than eight hours, THEN PERFORM the following:
- a. **INFORM** the Shift Supervisor of the available interval and that additional sources of inventory are required.
 - b. **CONSIDER AND EVALUATE** each of the following potential inventory sources on the contribution to available Feedwater inventory:
 - 1) P-936 transfer of T-939 to T-2. **REFER TO** ONP-2.1, Attachment 2.
 - 2) T-81 pump/gravity feed to T-2. **REFER TO** SOP-12.
 - 3) T-90 gravity feed to T-2. **REFER TO** SOP-12.
 - 4) Either of the following Hotwell sources:
 - a) Condensate Pump P-2A or P-2B operating and MV-CD129 is OPEN rejecting the hotwell to T-2.
 - b) P-214 hotwell transfer to T-2.**REFER TO** SOP-11.
 - 5) Makeup to T-2 from Makeup Demineralizers.
 - 6) TSC/PRC approved methods.
 - c. **IMPLEMENT** additional available Feedwater inventory sources as necessary.



PALISADES NUCLEAR PLANT EMERGENCY OPERATING PROCEDURE

Proc No	EOP Supplement
Supplement	2
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TITLE: PCS Cooldown Strategy

6. **DETERMINE** the minimum cooldown rate that available Feedwater inventory can support as follows:

$$\frac{(T_{c_Initial} \text{ (Step 5.1) }) - (300)}{(\text{Time Interval (Step 5.4) })} = \text{minimum cooldown rate}$$

$$\frac{(\quad) - 300}{(\quad)} = \quad \text{°F/hr.}$$

7. **INFORM** the Shift Supervisor that the available feedwater inventory will support the cooldown rate determined in Step 5.6.

Facility: **PALISADES**Date of Examination: **DEC 2001**Examination Level : **SRO**Operating Test Number: **1**

Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	CONDUCT OF OPERATIONS	Determine a Risk Achievement Worth (RAW)
		Perform a Heat Balance Using the PPC
A.2	EQUIPMENT CONTROL	Perform Administrative Review of a Temporary Mod
A.3	RADIATION CONTROL	Two ALARA/Radiation Protection Questions
A.4	EMERGENCY PLAN	Complete the Emergency Actions/Notifications Form

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO - A.1-1

**TITLE: Determine a Risk Achievement Worth
(RAW)**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Determine a Risk Achievement Worth (RAW)

Alternate Path: N/A

Facility JPM #: NEW

K/A: 2.1.19 Importance: SRO: 3.0 RO: N/A

K/A Statement: Ability to use plant computer to obtain and evaluate parametric information on system or component status.

Task Standard: A Risk Achievement Worth value is achieved for given plant conditions.

Preferred Evaluation Location: Simulator ☒ In Plant ☐

Preferred Evaluation Method: Perform ☒ Simulate ☐

References: Admin Proc. 4.02, Att. 9

Validation Time: 15 minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT ☐ UNSAT ☐

Comments:

Examiner: _____ Date: _____
Signature

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

Today is December 19, 2001. Outside air temperature is 42°F. Atmospheric conditions are as follows: clear skies. High Pressure Safety Injection Pump P-66A is to be removed from service for a motor PM.

INITIATING CUES:

The Control Room Supervisor has directed you to calculate a Risk Achievement Worth (RAW) for this maintenance on "LOCAL MODEL" and LOCAL EOOS" computer, using the password "WORK".

START TIME: _____

STEP / STANDARD	Grading
<p>Step 1: Initiate EOOS Program from computer main screen.</p> <p>Standard: EOOS Program showing on computer screen.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 2: Ensure "Local At-Power Model" and "Local EOOS" selected.</p> <p>Standard: Both items are selected (highlighted).</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 3: Select "OK".</p> <p>Standard: Candidate selects "OK".</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 4: Ensure User Name is "WCC".</p> <p>Standard: User Name is "WCC".</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

STEP / STANDARD	Grading
<p>Step 5: Type in password, "WORK".</p> <p>Standard: Password "WORK" is typed in cue window.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 6: Select "OK".</p> <p>Standard: "OK" is selected.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 7: Check "Environmental Vacancies" = "Normal"</p> <p>Standard: "Environmental Vacancies" noted to be "Normal".</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 8: Check "Trains In-Service" = "< 75°F Outside Air"</p> <p>Standard: "Trains In-Service" = "<75°F Outside Air" noted.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

STEP / STANDARD		Grading
Step 9: Select RED graphic box for P-66A. ----- OR ----- Locate and select "P-66A" from the component list.	S____ U____	
Standard: P-66A graphic box is selected.		
Notes: <i>(Either method is acceptable.)</i>		
Comments: <i>Critical step to enter correct component.</i>		
Step 10: Select "OK".	S____ U____	
Standard: "OK" is selected.		
Notes:		
Comments:		
Step 11: Select calculator graphic icon to calculate the RAW.	S____ U____	
Standard: RAW calculation is initiated.		
Notes:		
Comments:		
Step 12: Obtain RAW score of 3.50.	S____ U____	
Standard: RAW score of 3.50 is determined.		
Notes: (3.45 - 3.55 is acceptable.)		
Comments: <i>Critical step to obtain correct Risk Achievement Worth</i>		
<i>End of Task</i>		

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

Today is December 19, 2001. Outside air temperature is 42°F. Atmospheric conditions are as follows: clear skies. High Pressure Safety Injection Pump P-66A is to be removed from service for a motor PM.

INITIATING CUES:

The Control Room Supervisor has directed you to calculate a Risk Achievement Worth (RAW) for this maintenance on "LOCAL MODEL" and LOCAL EOOS" computer, using the password "WORK".

SIMULATOR OPERATOR INSTRUCTIONS

Determining a Risk Achievement Worth can be performed independent of any Simulator IC.

NO special setup required.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO - A.1-2

**TITLE: Perform a Heat Balance Calculation
 Using the PPC**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Perform a Heat Balance Calculation Using the PPC.

Alternate Path: N/A

Facility JPM #: NEW

K/A: 2.1.23 Importance: SRO: 4.0 RO:

K/A Statement: Ability to perform specific system and integrated plant procedures during all modes of plant operation.

Task Standard: Accurate Heat Balance power is determined for given plant parameters.

Preferred Evaluation Location: Simulator ☒ In Plant ☐

Preferred Evaluation Method: Perform ☒ Simulate ☐

References: GOP-12, section 6.1.1

Validation Time: 15 minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT ☐ UNSAT ☐

Comments:

Examiner: _____
Signature

Date: _____

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The plant is at full power and has been at steady state for 11 days. S/G Blowdowns actual values are 21K each.

INITIATING CUES:

A Heat Balance Calculation using the PPC is required to be performed, per GOP-12.

START TIME: _____

STEP / STANDARD	Grading
<p>Step 1: Obtains current procedure.</p> <p>Standard: Candidate obtains GOP-12 and refers to Section 6.1.1.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 2: Obtain PPC Page 521.</p> <p>Standard: PPC Page 521 is showing on the PPC screen.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 3: Ensure UFM Correction factors are correct.</p> <p>Standard: Refers to Tech Data Book, Figure 14.1 and determines that UFM Correction factors are correct.</p> <p>Notes: <i>Steps 3 and 4 may be performed in any order.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 4: Update S/G Blowdowns.</p> <p>Standard: Candidate determines that a change to S/G Blowdown flow IS required.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

STEP / STANDARD	Grading
<p>Step 5: Select data.</p> <p>Standard: Data key is selected.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 6: Enter new value.</p> <p>Standard: Enters 21000 lbm/hr for each S/G Blowdown flow.</p> <p>Notes:</p> <p>Comments: <i>Critical step to ensure accurate Heat Balance Power is calculated.</i></p>	<p>S____</p> <p>U____</p>
<p>Step 7: Press UPDATE hardkey.</p> <p>Standard: UPDATE is pressed. S/G Blowdown flow values change to 21000 lbm/hr each.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 8: Print Heat Balance form.</p> <p>Standard: Depresses PRINTER hardkey and obtains printout from printer.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

STEP / STANDARD		Grading
Step 9: Sign the printout. Standard: Candidate signs anywhere on the printout form. Notes: Comments:		S ____ U ____
Step 10: Request SRO review. Standard: Requests SRO review and signature. Notes: <i>Cue: When requested as the SS, inform candidate that all readings are within 1% of each other, and that NO adjustments are required.</i> Comments: END OF TASK		S ____ U ____

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

The plant is at full power and has been at steady state for 11 days. S/G Blowdowns actual values are 21K each.

INITIATING CUES:

A Heat Balance Calculation using the PPC is required to be performed, per GOP-12.

SIMULATOR OPERATOR INSTRUCTIONS

1. Reset to IC-19
2. Ensure NI indications on TMMs are all < 100.0 %.
3. Ensure TDB Figure 14.1, Revision 0 is correct. Use attached Figure 14.1 and insert it into the TDB for this JPM.
4. After each candidate has completed this JPM and prior to the next candidate starting, ensure that S/G Blowdowns (as indicated on PPC page 521) are as follows:

- * **E-50A BLOW FLOW** **20200 lbm / hr**
- * **E-50B BLOW FLOW** **20000 lbm / hr**

NOTE: Step 3 requirements can be accomplished by resetting the simulator to IC-19 each time.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO - A.2

**TITLE: Perform Administrative Review of a
Temporary Modification**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Perform Administrative Review of a Temporary Modification

Alternate Path: N/A

Facility JPM #: NEW

K/A: 2.2.11 Importance: SRO: 3.4 RO: N/A

K/A Statement: Knowledge of the process for controlling temporary changes.

Task Standard: Temporary Modification is NOT suitable for installation. Candidate should NOT approve the modification for installation.

Preferred Evaluation Location: Simulator ☒ In Plant ☐

Preferred Evaluation Method: Perform ☒ Simulate ☐

References: Admin Proc 9.31, section 7.2.2
Admin Proc 9.31, Attachment 2, Attachment 4
M-207, sh. 1B

Validation Time: 20 minutes Time Critical: ☐

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT ☐ UNSAT ☐

Comments:

Examiner: _____
Signature

Date: _____

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

The plant is at full power steady state. A problem has developed with seal cooling for Condensate Pump P-2B. It is desired to provide temporary cooling to the seal by using Primary System Makeup Tank T-81 water via the filter F-51B drain valve, MV-PMU507.

INITIATING CUES:

You have been given Admin Proc 9.31, Attachment 2, "Temporary Modification Form 3621", to review in accordance with Section 7.2.1 and determine if you should approve the TM for installation. NO Control Room drawings or procedures require revision.

START TIME: _____

STEP / STANDARD		Grading
Step 1: Obtain current procedure. Standard: Candidate refers to Admin Proc 9.31, 7.2.1. Notes: Comments:		S____ U____
Step 2: Documentation of Administrative Review. Standard: Candidate refers to Admin Proc, Attachment 4. Notes: <i>Provide Working Copy of Attachment 4 to candidate.</i> Comments:		S____ U____
Step 3: Perform Administrative Review of the Temporary Mod. Standard: Candidate reviews all items on the provided and filled out Form 3621 and notes the Technical Review has NOT been performed (signature missing). Notes: Comments: <i>Critical step to determine that TM has not been adequately reviewed.</i>		S____ U____
Step 4: Complete Admin Proc 9.31, Attachment 4. Standard: Candidate determines that this Temporary Modification should NOT be approved for installation. Notes: <i>To examiner: Use "Answer Key for JPM SRO-A.2" to assist in grading.</i> Comments:		S____ U____
END OF TASK		

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

The plant is at full power steady state. A problem has developed with seal cooling for Condensate Pump P-2B. It is desired to provide temporary cooling to the seal by using Primary System Makeup Tank T-81 water via the filter F-51B drain valve, MV-PMU507.

INITIATING CUES:

You have been given Admin Proc 9.31, Attachment 2, "Temporary Modification Form 3621", to review in accordance with Section 7.2.1 and determine if you should approve the TM for installation. NO Control Room drawings or procedures require revision.

SIMULATOR OPERATOR INSTRUCTIONS

This JPM does not require use of the Simulator. However, Initial Conditions are given to the candidate as the plant is at full power. Therefore, if practicable, any full power IC should be used, though this is NOT required.

TEMPORARY MODIFICATION FORM 3621

DESCRIPTION NOTE: SEE AP 9.31 FOR INSTRUCTIONS ON COMPLETING THIS FORM.

Index No TM- 2001 - 999

System <i>Condensate</i>	UFI	Equipment <i>P-2B</i>	UFI	Q-Listed X Yes <input type="checkbox"/> No	Expected Removal Date/Mechanism <i>Refout 2003/24018888</i>
Temporary Modification Description-Fill in First Three Columns of Installation/Removal Section (*)					
<i>Provide temporary cooling to Condensate Pump P-2B seal from Primary System Makeup Tank T-81 via Primary System Makeup Filter F-51B drain valve MV-PMU-507.</i>					
Reason for Temporary Modification <i>Extend life of seal of Condensate Pump P-2B.</i>					
Affected Drawings/Procedures <i>M-207, sh. 1B</i>					
Initiator <i>J. Engineer</i>		Date <i>Dec. 17, 2001</i>			

REVIEW

Technical Review	Date
PRC Review (if Q-Listed) <i>Alan Smith</i>	Date <i>Dec. 17, 2001</i>

INSTALLATION/REMOVAL

Work Order Number for Installation <i>24017777</i>	Shift Supervisor Authorization for Installation (ATTACHMENT 4 COMPLETE AND ATTACHED)	Date	Caution Tags Placed <input type="checkbox"/> Yes <input type="checkbox"/> No
Work Order Number for Removal <i>24018888</i>	Shift Supervisor Authorization for Removal	Date	Caution Tag Log Number

NOTE: If installation of this TM is delayed or interrupted after the Shift Supervisor's approval has been received, notify the Shift Supervisor immediately.

*Item-eg, Jumper, Link, Wire, Blank Flange	*Location-eg, Panel, Terminal Strip No, Link No, Room No, J Box No	*Operation-eg, Open, Removed, Placed	Installation Performed By/Date	Installation Verification By/Date	Removal Performed By/Date	Removal Verification By/Date
<i>Red Rubber Hose</i>	<i>MV-PMU507</i>	<i>Connect hose</i>				
<i>with Chicago fitting</i>	<i>P-2B Seal Area</i>	<i>Aim nozzle at seal</i>				
<i>on one end and</i>	<i>MV-PMU507</i>	<i>Open</i>				
<i>appropriate throttle</i>	<i>Throttle Valve</i>	<i>Open to establish</i>				
<i>valve and nozzle on</i>		<i>cooling flow.</i>				
<i>other end.</i>						

Temporary Modification Tags Placed By	Date	Drawings Revised at Removal Initiator Signature	Date
Temporary Modification Tags Removed By	Date	Closeout Administrative Review Discipline Design Engineering Supervisor	Date

**TEMPORARY MODIFICATION ADMINISTRATIVE
REVIEW SHEET**

Perform an Administrative Review of the TM. This review is to ensure completeness of information including:

	YES	NO	N/A	
TM index number has been assigned.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
All information in the "Description" section is complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Technical review performed and documented.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Safety Review completed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
PRC Review complete and documented if the TM is Q-Listed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Item, location, and operation descriptions for installation are appropriate.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
TM is compatible with existing Plant and system conditions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
If compatibility of the TM is questionable, is functional testing identified or required for this TM?	<input type="checkbox"/>	<input type="checkbox"/>		
The installation of the new TM is logged in the Shift Supervisors Logbook in accordance with Palisades Administrative Procedure 4.00, "Operations Organization, Responsibilities and Conduct."	<input type="checkbox"/>	<input type="checkbox"/>		
All affected drawings noted in TM description section.	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
All affected Control Room drawings revised prior to operability.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
All affected procedures revised prior to operability.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Caution Tags installed.	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
-If yes, indicate Caution Tag log number on TM Form.				
Comments:				

Shift Supervisor _____
Date _____

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO - A.3

TITLE: Radiation Control (Questions)

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Knowledge of Radiation Protection (405 003 01 01)

Alternate Path: N/A

Facility JPM #: NEW

K/A: 2.3.4 / 2.3.1 Importance: SRO: RO: 2.5 / 2.6

K/A Statement: Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized.

Knowledge of 10CFR: 20 and related facility radiation control requirements.

Task Standard: Correctly respond to administrative questions.

Preferred Evaluation Location: Simulator _____ In Plant _____

Preferred Evaluation Method: Perform ___N/A___ Simulate _____

References: Admin Proc 7.13 and 7.15

Validation Time: ___10___ minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT _____ UNSAT _____

Comments:

Examiner: _____ Date: _____
Signature

JPM QUESTION #1

REFERENCE ALLOWED: $\frac{\underline{\text{X}}}{\text{YES}} / \frac{\underline{\hspace{1cm}}}{\text{NO}}$

Question: Upon exiting a Contaminated Area (CA) you are preparing to perform a Whole Body Frisk. After verifying the frisker is on the X1 scale, you note that the background level indicates approximately 250 cpm.

During the frisk, you note an area on your left wrist that indicates 380 cpm.

What action(s) should you take?

Answer: Per Admin Proc 7.15, Attachment 3, item 3 the worker should remain in the area and notify Radiation Safety for assistance.

CANDIDATE'S RESPONSE

Time: 5 minutes

K/A: 2.3.4 (Importance - 2.5)

JPM QUESTION #2

REFERENCE ALLOWED: X /
 YES NO

Question: An emergency condition requires you to enter the Radwaste Panel C-40 area.

What is the MINIMUM dosimetry required for you to wear?

Answer: Per Admin Proc 7.13, Section 8.4.1, the minimum required is a Primary TLD.

CANDIDATE'S RESPONSE

Time: 5 minutes

K/A: 2.3.1 (Importance - 2.6)

JPM QUESTION #1

CANDIDATE COPY

REFERENCE ALLOWED:

 X /
YES NO

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF ANSWER)

Question: Upon exiting a Contaminated Area (CA) you are preparing to perform a Whole Body Frisk. After verifying the frisker is on the X1 scale, you note that the background level indicates approximately 250 cpm.

During the frisk, you note an area on your left wrist that indicates 380 cpm.

What action(s) should you take?

JPM QUESTION #2

CANDIDATE COPY

REFERENCE ALLOWED:

 X /
YES NO

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF ANSWER)

Question: An emergency condition requires you to enter the Radwaste Panel C-40 area.

What is the MINIMUM dosimetry required for you to wear?

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO - A.4

**TITLE: Classify an Emergency Event AND
Determine Protective Action
Recommendations**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Classify and Emergency Event AND Determine Protective Action Recommendations

Alternate Path: N/A

Facility JPM #: JPM SRO-A.4

K/A: 2.4.41, 2.4.44 Importance: SRO: 4.1, 4.0 RO:

K/A Statement: (2.4.41) Knowledge of the emergency action level thresholds and classifications.
(2.4.44) Knowledge of emergency plan protective action recommendations.

Task Standard: EI-3, Attachment 1, Section 7, Protective Action Recommendations, is satisfactorily completed in less than 15 minutes.

Preferred Evaluation Location: Simulator X In Plant

Preferred Evaluation Method: Perform X Simulate

References: EI-1, Emergency Classifications and Actions
EI-3, Communications and Notifications
EI-6.13, Protective Action Recommendations for Offsite Populations

Validation Time: 20 minutes Time Critical: YES

NOTE: Time critical element is notification within 15 minutes of event declaration

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT UNSAT

Comments:

Examiner: _____ Date: _____
Signature

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

1. A LOCA is in progress.
2. PZR level is offscale low.
3. PCS pressure is 100 psia.
4. PCS indicates superheated conditions.
5. Total LPSI/HPSI flow is inadequate per EOP Supplement 4.
6. SIRWT level is 38% and lowering slowly.
7. Containment High Range Monitors are indicating 3E3R/hr.
8. Failed fuel analysis is in progress with no results to report.
9. An actual release is NOT occurring through the plant stack or steam dumps.
10. Weather outside is clear with no precipitation.
11. Obtained Meteorological Data is as follows:
 - QN = 0.0
 - QI = 0.0
 - Wind Speed = 1.1
 - Stability Class = G
 - Wind Direction = 235 (from)

INITIATING CUES:

During activation of the Site Emergency Plan, you are the Shift Supervisor (acting as the SED).

You are to classify the event given the above information AND determine the Protective Action Recommendations required for this event.

You have 15 minutes to evaluate and declare the appropriate emergency action level and 15 minutes to ensure this information is provided to VanBuren County.

START TIME: _____

STEP / STANDARD	Grading
<p>Step 1: Locates procedure to determine Emergency Classification.</p> <p>Standard: Locates EI-1 and refers to Attachment 1.</p> <p>Notes:</p> <p>Comments:</p>	<p>S _____</p> <p>U _____</p>
<p>Step 2: Refers to "Primary Coolant System Integrity" section to determine Emergency Classification.</p> <p>Standard:</p> <p>Notes:</p> <p>Comments:</p>	<p>S _____</p> <p>U _____</p>
<p>Step 3: Declares correct Emergency Classification.</p> <p>Standard: Determines Emergency Classification is GENERAL EMERGENCY based on indications of LOCA, SI flow inadequate, and indications of failed fuel.</p> <p>Notes:</p> <p>Comments:</p>	<p>S _____</p> <p>U _____</p>

<p>Step 4: Prepares Notification Form by entering meteorological data in offsite dose program.</p> <p>Standard: Enters following meterological data in offsite dose program</p> <ul style="list-style-type: none"> • QN = 0.0 • QI = 0.0 • Wind Speed = 1.1 • Stability Class = G • Wind Direction = 235 (from) <p>and verifies 0.7 Mev/dis, 0.0 m release height, and 2 hour release duration default information in program.</p> <p>Notes: <i>Critical to ensure correct information is relayed to offsite agencies.</i></p> <p><i>NOTE: With no release in progress, may elect to manually enter data in EI-6.13. This is acceptable.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 5: Enters required information in Notification Form.</p> <p>Standard: Checks box labeled "From CR".</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 6: Enters required information in Notification Form, Section 1</p> <p>Standard: Checks boxes labeled "To County", "To State", and "To NRC"</p> <p>Notes: <i>Critical step to ensure correct offsite agencies are notified.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

<p>Step 7: Enters required information in Notification Form, Section 2A</p> <p>Standard: Enters "1" in "Plant Message Number"</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 8: Enters required information in Notification Form, Section 3</p> <p>Standard: Checks box labeled "General Emergency" in 3D, enters current time and date in 3E, and gives a general description of plant conditions in 3F (LOCA inside containment, etc.).</p> <p>Notes: <i>Critical to ensure correct information is relayed to offsite agencies.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 9: Enters required information in Notification Form, Section 4</p> <p>Standard: Checks box labeled "Stable" in 4A OR checks box labeled "Degrading" in 4B and enters "Attempts are being made to restore cooling flow to the reactor core" (or similar) in 4D.</p> <p>Notes: <i>Critical to ensure correct offsite agencies are notified.</i></p> <p><i>NOTE: This section is a judgement call. Either box 4A or 4B is acceptable to check and 4D should contain information pertinent to event conditions.</i></p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

<p>Step 10: Enters required information in Notification Form, Section 5.</p> <p>Standard: Checks box labeled "NO" due to no release in progress.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 11: Enters required information in Notification Form, Section 6.</p> <p>Standard: Checks box labeled "NO" and verify dose projection program has completed items 6A through 6D.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>
<p>Step 12: Locates procedure to perform Protective Action Recommendations.</p> <p>Standard: Locates EI-6.13 and refers to Attachment 1.</p> <p>Notes:</p> <p>Comments:</p>	<p>S____</p> <p>U____</p>

<p>Step 13: Enters required information in Notification Form, Section 7</p> <p>Standard: Checks box labeled "YES" for 7A due to PARs required, checks box labeled "Plant Status" for 7B, enters "NA" (or leaves blank) item 7C, and enters "2 mile radius and 5 miles in areas 1 and 2" in item 7D</p> <p>Notes: <i>Critical to ensure correct information is relayed to offsite agencies.</i></p> <p>Comments:</p>	<p>S _____</p> <p>U _____</p>
<p>Step 14: Hands Notification Form to communicator for transmission.</p> <p>Standard: Give Notiifcation Form to communicator.</p> <p>Notes:</p> <p>Comments:</p> <p style="text-align: center;">END OF TASK</p>	<p>S _____</p> <p>U _____</p>

STOP TIME: _____

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

1. A LOCA is in progress.
2. PZR level is offscale low.
3. PCS pressure is 100 psia.
4. PCS indicates superheated conditions.
5. Total LPSI/HPSI flow is inadequate per EOP Supplement 4.
6. SIRWT level is 38% and lowering slowly.
7. Containment High Range Monitors are indicating 3E3R/hr.
8. Failed fuel analysis is in progress with no results to report.
9. An actual release is NOT occurring through the plant stack or steam dumps.
10. Weather outside is clear with no precipitation.
11. Obtained Meteorological Data is as follows:
 - QN = 0.0
 - QI = 0.0
 - Wind Speed = 1.1
 - Stability Class = G
 - Wind Direction = 235 (from)

INITIATING CUES:

During activation of the Site Emergency Plan, you are the Shift Supervisor (acting as the SED).

You are to classify the event given the above information AND determine the Protective Action Recommendations required for this event.

You have 15 minutes to evaluate and declare the appropriate emergency action level and 15 minutes to ensure this information is provided to VanBuren County.

SIMULATOR OPERATOR INSTRUCTIONS

No Simulator setup required. Ensure the offsite dose program on the computer in the simulator is functioning.