REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO A.1-1

TITLE: Perform Calculation of Compensation Required for an Untrippable Control Rod

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Perform Calculation of Compensation Required for an Untrippable Control Rod

Alternate Path: NONE

Facility JPM #:   RTB-02N.JPM

K/A: 001A2.03   Importance: SRO: 4.2   RO: 3.5

K/A Statement: Ability to (a) predict the impacts of the following malfunction or operations on the CRDS, and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Effect of stuck or misaligned rod.

Task Standard: EM-04-08 Attachment 1 properly completed.

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: EM-04-08, Shutdown Margin Requirements
Technical Data Book

Validation Time: __20__   minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____   minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
Signature

Tools/Equipment/Procedures Needed:

Calculator
Ruler

Also see **Simulator Operator Instructions** (last page of this document).

EXAMINER COPY ONLY

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:

Rod #6 is inoperable and fully withdrawn. It is believed that the rod is untrippable. Burnup is 6955 MWD/MTU. Reactor power is 40%, PCS Boron is 836 ppm. All rods are out, and equilibrium Xenon conditions exist. Reactor Engineering is NOT available.

INITIATING CUES:

You have been directed to determine the compensation for shutdown margin required for Control Rod #6 utilizing EM-04-08.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtain current procedure.	___ Obtains EM-04-08 and refers to Section 7.2.3 and Attachment 1. ___ Obtains Technical Data Book.	S U
Comment:			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
EM-04-08 **7.2.3c**	IF a withdrawn Control Rod is determined to be untrippable, **THEN** perform Attachment 1.	Refers to Attachment 1 for required actions.	S U
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
Att. 1 **Sect.1**	Enter data in Section 1 for Untrippable Control Rod Identification.	Group "A", Number "6" , Condition "Untrippable" entered in Section 1.	S U
Comment:			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
Sect. 2	Enter data in Section 2 for Worth of Untrippable Rod	___ Refers to TDB Fig. 1.1. ___ Worth of Untrippable rod entered as 1.19. **CRITICAL STEP**	S U
Comment: **TDB = Technical Data Book**			

Proc.Step	TASK ELEMENT 5	STANDARD	Grade
Sect. 3	Enter data in Section 3 for Source of Untrippable Control Rod Worth.	Source of data entered as "Technical Data Book", Fig. 1.1.	S U
Comment:			

Proc.Step	TASK ELEMENT 6	STANDARD	Grade
4.A	Enter data in Section 4.A for Current Cycle Burnup.	"6955" entered in Section 4.A.	S U
Comment:			

Note: Data given in Initial Conditions.

CRITICAL STEP

Proc.Step	TASK ELEMENT 7	STANDARD	Grade
4.B	Enter data in Section 4.B for Current Reactor Power Level.	"40" entered in Section 4.B.	S U
Comment:			

Note: Data given in Initial Conditions.

CRITICAL STEP

Proc.Step	TASK ELEMENT 8	STANDARD	Grade
4.C	Enter data in Section 4.C for Control Rod Worth Inserted into Core.	"0" entered as Worth, Group as "4", and Inches as "131".	S U
Comment:			

Note: Data given as "all rods out" in Initial Conditions.

Proc.Step	TASK ELEMENT 9	STANDARD	Grade
4.D	Enter data in Section 4.D for PCS Boron Concentration.	"836" entered in Section 4.D.	S U

Comment:

CRITICAL STEP

Proc.Step	TASK ELEMENT 10	STANDARD	Grade
5.E	Enter data in Section 5.E for Worth of All Control Rods.	___ Refers to TDB, Fig. 1.1. ___ "7.08" entered in Section 5.E. **CRITICAL STEP**	S U

Comment:

Proc.Step	TASK ELEMENT 11	STANDARD	Grade
5.F	Enter data in Section 5.F for Maximum Worth of Stuck Rod.	Worth entered as "1.19" in 5.F.	S U

Comment:

Proc.Step	TASK ELEMENT 12	STANDARD	Grade
5.G	Enter data in Section 5.G for PCS Boron at 100% Power.	___ Refers to TDB Fig. 6.1. ___ "780" entered in 5.G.	S U

Comment:

CRITICAL STEP

Proc.Step	TASK ELEMENT 13	STANDARD	Grade
5.H	Enter data in Section 5.H for Power Defect at 100% Power.	___ Refers to TDB Fig. 3.2. ___ "1.565" entered in 5.H.	S U
Comment:			
CRITICAL STEP			

Proc.Step	TASK ELEMENT 14	STANDARD	Grade
5.I	Enter data in Section 5.I for Power Defect.	Calculated value of "0.626" entered in 5.I.	S U
Comment:			
CRITICAL STEP			

Proc.Step	TASK ELEMENT 15	STANDARD	Grade
6.K	Enter data in Section 6.K for Net Amount of Shutdown Margin.	Calculated value of "2.728" entered in 6.K.	S U
Comment:			
CRITICAL STEP			

Proc.Step	TASK ELEMENT 16	STANDARD	Grade
6.L	Enter data in Section 6.L for Worth of Untrippable Control Rod.	"1.19" entered in 6.L.	S U
Comment:			
Note: Previously determined data (Section 2).			
CRITICAL STEP			

Proc.Step	TASK ELEMENT 17	STANDARD	Grade
6.M	Enter data in Section 6.M for Excess Shutdown Margin.	Calculated value of "1.538" entered in 6.M.	S U
Comment:			
CRITICAL STEP			

Proc.Step	TASK ELEMENT 18	STANDARD	Grade
8.R	Enter data in Section 8.R for PPC PDIL.	___ Refers to TDB, Fig. 1.9. ___ Group as "4", and Inches as "25" entered in 8.R CRITICAL STEP	S U
Comment:			
NOTE: Section 7 is NOT required.			

Proc.Step	TASK ELEMENT 19	STANDARD	Grade
8.S	Enter data in Section 8.S for Control Rod Position Corresponding to Excess Shutdown Margin.	___ Refers to TDB, Fig. 1.3. ___ Group 3 at 8 inches entered in 8.S. CRITICAL STEP	S U
Comment:			

Proc.Step	TASK ELEMENT 20	STANDARD	Grade
8.T	Enter data in Section 8.T for PDIL for Untrippable Control Rod Condition.	Group 4 at 25 inches entered in 8.T.	S U
Comment: CRITICAL STEP			

Proc.Step	TASK ELEMENT 21	STANDARD	Grade
8.U	Determines if Caution Tag on Panel C-02 joystick is required.	Determines that a Caution Tag on Panel C-02 joystick is NOT required.	S U
Comment: CRITICAL STEP			

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

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CANDIDATE CUE SHEET

</div>

INITIAL CONDITIONS:

Rod #6 is inoperable and fully withdrawn. It is believed that the rod is untrippable. Burnup is 6955 MWD/MTU. Reactor power is 40%, PCS Boron is 836 ppm. All rods are out, and equilibrium Xenon conditions exist. Reactor Engineering is NOT available.

INITIATING CUES:

You have been directed to determine the compensation for shutdown margin required for Control Rod #6 utilizing EM-04-08.

SIMULATOR OPERATOR INSTRUCTIONS

● Simulator not required for this JPM.

● Ensure a Technical Data Book is available. Insert Figure 1.10 that shows a burnup of 6955MWd/MTU.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO A.1-2

TITLE: Perform PCS Heatup Determination

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Perform PCS Heatup Determination

Alternate Path: NONE

Facility JPM #:   JPMRO-A.1-12000Cert

K/A: 2.1.25   Importance: SRO: 3.1   RO: 2.8

K/A Statement: Ability to obtain and interpret station reference materials such as graphs, monographs, and tables which contain performance data.

Task Standard: Allowable Shutdown Cooling outage time calculated to be 44 minutes (40 minutes to 48 minutes).

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: SOP-3, "Safety Injection and Shutdown Cooling System"
ONP-17, "Loss of Shutdown Cooling"

Validation Time: __15__   minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____   minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                          Signature

Tools/Equipment/Procedures Needed:

EXAMINER COPY ONLY

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:

Fifteen days after a plant shutdown, PCS temperature is 120ºF. The Reactor cavity is flooded to a level of 633'. The Pressurizer manway is removed. Shutdown Cooling is in operation, but must be shutdown for the maximum time allowable.

INITIATING CUES:

You have been directed to determine how long (in minutes) Shutdown Cooling may be shutdown in accordance with SOP-3, Section 7.3.7.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtain current copy of procedure.	Obtains SOP-3, and refers to Section 7.3.7.	S U
Comment:			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
7.3.7.a	Determine "Approximate Time to 200ºF" time from appropriate curve in ONP-17 and convert to hours.	___ Refers to ONP-17, Attachment 1. ___ Uses curve labeled Refueling Cavity Flooded to 632' to determine time to 200ºF. ___ Uses "15 Days" curve and 120ºF point and determines time to 200ºF is ~3 hours **CRITICAL STEP**	S U
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
7.3.7.b	Determine PCS heatup rate.	Heatup rate calculated to be ~27ºF / hour.	S U
Comment: **NOTE:** **Heatup rate is calculated by dividing 80ºF (200ºF - 120ºF) by 3 hours.** **CRITICAL STEP**			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
7.3.7.c	Determine allowable Shutdown Cooling outage time.	Calculates allowable Shutdown Cooling outage time to be 44 minutes (40 - 48 minutes).	**S U**

Comment:

NOTE: **Allowable outage time calculated by dividing 20ºF (maximum allowed heatup) by 27ºF / hour (previously calculated heatup rate) and converting to minutes.**

CRITICAL STEP

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

Fifteen days after a plant shutdown, PCS temperature is 120ºF. The Reactor cavity is flooded to a level of 633'. The Pressurizer manway is removed. Shutdown Cooling is in operation, but must be shutdown for the maximum time allowable.

INITIATING CUES:

You have been directed to determine how long (in minutes) Shutdown Cooling may be shutdown in accordance with SOP-3, Section 7.3.7.

SIMULATOR OPERATOR INSTRUCTIONS

Simulator not required for this JPM.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO A.2

TITLE: Perform SHO-1 Surveillance

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Complete the SHO-1 Surveillance.

Alternate Path: Candidate will be provided a partially completed Shiftly/Hourly
Tech. Spec surveillance and directed to complete it. During the
performance of completing the surveillance, candidate will discover
several out-of-spec readings.

Facility JPM #:   JPMRO-A.2 2001

K/A: 2.2.12   Importance: SRO: RO: 3.0

K/A Statement: Knowledge of surveillance procedures.

Task Standard: Identification of three out-of-spec readings.

Preferred Evaluation Location: Simulator   __X__   In Plant   _____

Preferred Evaluation Method: Perform   __X__   Simulate   _____

References: SHO-1, Shift Surveillance Data Sheet

Validation Time: __25___ minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                                 Signature

EVALUATOR SPECIAL INSTRUCTIONS:

● Provide candidate with a Working Copy of SHO-1, Attachment 1, "Shift Surveillance Data Sheet"

● Ensure a red ink pen is available.

Also see **Simulator Operator Instructions** (last page of this document).

EXAMINER COPY ONLY

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.

SPECIAL NOTE:
Assume that all Plant Requirements and Precautions and Limitations have been reviewed and complied with. You are NOT expected, nor are you required to consult the Plant Requirements and Precautions and Limitations section of any procedure for this JPM.

INITIAL CONDITIONS:

The plant is at 100% power.

INITIATING CUES:

You have been directed to take the readings of SHO-1, Items 5.1.1 through and including 5.1.13 on pages 1,2,3,4, and 5 for 'A' Shift. ALL remaining readings have already been taken by another NCO.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
5.1.1	Check the 4 safety channels of NI power within 1% of each other.	Records readings in "Shift A Readings" column, and initials "RECRD BY"	S U
Comment:			
Note: *Surveillance steps may be performed in any order.*			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
5.1.2	Check 4 TMM ΔT Power indications within 1% of each other.	Records readings in "Shift A" column, and initials "RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
5.1.3	Check NI / ΔT Comparator meter varying as expected.	Records a $\sqrt{}$ or "OK" and initials RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
5.1.4	Check Axial Shape Index display OK.	Checks either the "System Status" or "Power Density" screen for OK indication; records a $\sqrt{}$ or "OK" , and initials RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 5	STANDARD	Grade
5.1.5	Check PCS Cold Leg Temperatures <543.5°F.	Checks TMM "System Status" screen Trip Status Box indicating OK; records a √ or "OK" , and initials RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 6	STANDARD	Grade
5.1.6	Check Wide Range NIs readings and that they agree within 1 ½ decades.	Records readings in "Shift A Readings" column.	S U
Comment:			

Proc.Step	TASK ELEMENT 7	STANDARD	Grade
5.1.6	Determine out of tolerance data.	Notes that NI-1/3A is NOT within 1 ½ decades of the other Wide Range NI.	S U
Comment: CRITICAL STEP			

Proc.Step	TASK ELEMENT 8	STANDARD	Grade
5.1.6	Identifies out of tolerance reading.	Circles in RED NI-1/3A reading, initials RECRD BY column and notifies Control Room Supervisor of out of tolerance reading.	S U
Comment: CUE: When notified as SS, direct candidate to continue the surveillance. CRITICAL STEP			

RO JPM A.2

Proc.Step	TASK ELEMENT 9	STANDARD	Grade
5.1.6	Provide explanation in Comments Section, SHO-1, Att. 1, p. 16.	NOTE: Since no detailed explanation is available, this step is NOT required.	S U
Comment:			

Proc.Step	TASK ELEMENT 10	STANDARD	Grade
5.1.7	Check Quadrant Power Tilt.	Checks NI Channels 5,6,7,8 deviation lights NOT lit and no alarms (EK-06C3); records a √ or "OK" , and initials RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 11	STANDARD	Grade
5.1.8	Check Steam Generator pressure indications within 40 psi of each other.	Records readings in "Shift A Readings" column.	S U
Comment:			

Proc.Step	TASK ELEMENT 12	STANDARD	Grade
5.1.8	Determine out of tolerance data.	Notes PIC-0752C indication for "B" S/G is >40 psi out of agreement with the other 3 for "B" S/G.	S U
Comment: **CRITICAL STEP**			

Proc.Step	TASK ELEMENT 13	STANDARD	Grade
5.1.8	Identifies out of tolerance reading.	Circles in RED PIC-0752C reading, initials RECRD BY column and notifies Control Room Supervisor of out of tolerance reading.	S U
Comment:			
CUE: When notified as SS, direct candidate to continue the surveillance.			
CRITICAL STEP			

Proc.Step	TASK ELEMENT 14	STANDARD		Grade
5.1.8	Provide explanation in Comments Section, SHO-1, Att. 1, p. 16.	Note:	Since no detailed explanation is available, this step is NOT required.	S U
Comment:				

Proc.Step	TASK ELEMENT 15	STANDARD	Grade
5.1.9	Check Steam Generator levels sigmas within 4% of each other.	Records readings in "Shift A Readings" column and initials RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 16	STANDARD	Grade
5.1.10	Check Primary Coolant Flow indications within 5% of scale agreement.	Records readings in "Shift A Readings" column and initials RECRD BY.	S U
Comment:			

Proc.Step	TASK ELEMENT 17	STANDARD	Grade
5.1.11	Check PZR Code Safety Temperatures.	Records three readings ranging from approx. 130° to 145°F and initials RECRD BY.	S U

Comment:

Note: *These reading are ambient and consistent with plant conditions.*

Proc.Step	TASK ELEMENT 18	STANDARD	Grade
5.1.12	Check PORV temperature.	Checks TIA-0106 for a reading.	S U

Comment:

Note: **Candidate may choose to N/A this reading, since it is not required for current plant conditions.**

Proc.Step	TASK ELEMENT 19	STANDARD	Grade
5.1.12	Determines out of tolerance data.	Notes TIA-0106 is failed low (reading 0).	S U

Comment:

Proc.Step	TASK ELEMENT 20	STANDARD	Grade
5.1.12	Identifies out of tolerance reading.	Circles in RED TIA-0106; initials RECRD BY column and notifies Control Room Supervisor of out of tolerance reading.	S U

Comment:

Note: *When notified as CRS, direct candidate to continue the surveillance.*

Proc.Step	TASK ELEMENT 21	STANDARD		Grade
5.1.12	Provide explanation in Comments Section, SHO-1, Att. 1, p. 16.	Note:	Since not detailed explanation is available, this step is NOT required.	S U
Comment:				

Proc.Step	TASK ELEMENT 22	STANDARD	Grade
5.1.13	**(FINAL ITEM FOR THIS JPM)** Check PZR pressure.	Check 4 channel sigmas within agreement by 40 psi; AND check pressure between 2010 - 2100 psia. Records readings in "Shift A Readings" column and initials RECRD BY.	S U
Comment:			

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

SPECIAL NOTE:
Assume that all Plant Requirements and Precautions and Limitations have been reviewed and complied with. You are NOT expected, nor are you required to consult the Plant Requirements and Precautions and Limitations section of any procedure for this JPM.

INITIAL CONDITIONS:

The plant is at 100% power.

INITIATING CUES:

You have been directed to take the readings of SHO-1, Items 5.1.1 through and including 5.1.13 on pages 1,2,3,4, and 5 for 'A' Shift. ALL remaining readings have already been taken by another NCO.

SIMULATOR OPERATOR INSTRUCTIONS

● Reset to any full power IC.

● OVERRIDE NI-1/3A Wide Range Log Meter indication to failed low
   (NI-3 - PWR-1 @ 0.75)

● OVERRIDE PIC-0752C to indicate ~860# (Value = 0.71)

● TIA-0106 fail low (discharge temp for PORVs) (Value = 0.0)

● Ensure a RED PEN is available to candidate.

● Ensure "A" Channel TMM VHPT setpoint is at normal value.

● Ensure NI @ 100.1%, i.e., accurate.

● OVRD NI-4-PWR-1 @ 1.0.

● Ensure this JPM is administered only with a full power IC (when scheduling with
   other JPMs). This ensures that PORV tailpipe temperature is a required reading.

● Ensure copies of SHO-1, Attachment 1, page 1, 2, 3, 4, and 5 are available with
   Section 5.1.14 grayed out.

● Ensure Simulator clipboard copy of SHO-1, Attachment 1 is the current revision.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO A.3

TITLE: Determine Expected Dose for Equipment Inspection

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Determine Expected Dose for Equipment Inspection

Alternate Path: NONE

Facility JPM #: NEW

K/A: 2.3.10 Importance: SRO: 3.3 RO: 2.9

K/A Statement: Ability to perform procedures to reduce excessive levels of radiation

Task Standard: Expected dose is calculated to be 5 mR.

Preferred Evaluation Location: Simulator _X_ In Plant _____

Preferred Evaluation Method: Perform _X_ Simulate _____

References: Health Physics Procedure 2.14, "Radiological Surveys"

Validation Time: __20__ minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____ UNSAT _____

Comments:

Examiner: _____ Date: _____
Signature

Tools/Equipment/Procedures Needed:

EXAMINER: Provide the attached "Radiological Area Status Sheet" to candidate upon request.

EXAMINER COPY ONLY

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 a refueling outage. Work is in progress on P-67A Low Pressure Safety Injection Pump. A report has been received in the Control Room that scaffold erecting activities may have damaged the seal cooler and seal injection lines for P-67A.

INITIATING CUES:

You have been assigned the task of inspecting P-67A seal cooler and seal injection lines for damage. This will require close inspection (within 2 feet of pump skid area next to the seal cooler), but you are NOT to cross any contamination boundary. The inspection is expected to require 15 minutes to complete.

Determine the maximum expected radiation dose you will receive for this task.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtains correct survey map for P-67A.	Obtains "Radiological Area Status Sheet" for East Engineering Safeguards.	S U

Comment:

CUE: **Provide candidate with attached Radiological Area Status Sheet.**

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
---	Determine dose rate near the component.	Dose rate determined to be 20 mRem/hr.	S U

Comment:

CUE: **Provide candidate with attached photograph of P-67A skid.**

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
---	Calculates expected dose.	Expected dose calculated to be 5 mRem.	S U

Comment:

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

CANDIDATE CUE SHEET

INITIAL CONDITIONS:

The plant is a refueling outage. Work is in progress on P-67A Low Pressure Safety Injection Pump. A report has been received in the Control Room that scaffold erecting activities may have damaged the seal cooler and seal injection lines for P-67A.

INITIATING CUES:

You have been assigned the task of inspecting P-67A seal cooler and seal injection lines for damage. This will require close inspection (within 2 feet of pump skid area next to the seal cooler), but you are NOT to cross any contamination boundary. The inspection is expected to require 15 minutes to complete.

Determine the maximum expected radiation dose you will receive for this task.

SIMULATOR OPERATOR INSTRUCTIONS

Simulator NOT required for this JPM.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM RO A.4

TITLE: Activate Emergency Response Data System (ERDS) Datalink to the NRC

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Activate Emergency Response Data System Datalink to NRC.

Alternate Path: NONE

Facility JPM #:   2000CertJPMRO-A.4

K/A: 2.4.39   Importance: SRO: 3.1   RO: 3.1

K/A Statement: Knowledge of RO responsibilities in emergency plan implementation

Task Standard: ERDS Datalink to the NRC has been activated.

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: SOP-34, "Palisades Plant Computer (PPC) System

Validation Time: __5__ minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                    Signature

Tools/Equipment/Procedures Needed:

Also see **Simulator Operator Instructions** (last page of this document).

EXAMINER COPY ONLY

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:

An emergency event requires the Emergency Response Data System (ERDS) datalink to the NRC to be established.

INITIATING CUES:

You have been directed to activate the ERDS datalink to the NRC in accordance with SOP-34, Section 7.5.2.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtains current procedure.	Obtains copy of SOP-34 and refers to Section 7.5.2.	S U
Comment:			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
7.5.2.a	Select the EMERGENCY, OFFNORM, POST TRIP menu from the Main Menu.	Enters EMERGENCY menu from the Main Menu.	S U
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
7.5.2.b	Select ERDS ACTIVATION & STATUS	ERDS ACTIVATION & STATUS selected from EMERGENCY menu.	S U
Comment:			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
7.5.2.c	Select DATALINK (ON/OFF) square.	DATALINK (ON/OFF) square selected.	S U
Comment:			

Proc.Step	TASK ELEMENT 5	STANDARD	Grade
7.5.2.d	Turn ERDS on.	Types "1" to turn ERDS datalink on.	**S U**
Comment: **CRITICAL STEP**			

Proc.Step	TASK ELEMENT 6	STANDARD	Grade
7.5.2.e	Depress the UPDATE hardkey, and then depress the RETURN key.	UPDATE hardkey depressed, then RETURN key depressed.	**S U**
Comment: **CRITICAL STEP**			

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

CANDIDATE CUE SHEET

INITIAL CONDITIONS:

An emergency event requires the Emergency Response Data System (ERDS) datalink to the NRC to be established.

INITIATING CUES:

You have been directed to activate the ERDS datalink to the NRC in accordance with SOP-34, Section 7.5.2.

SIMULATOR OPERATOR INSTRUCTIONS

- Reset to any IC.

- No special setup required.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO A.1-1

TITLE: Verify Calculation of Compensation Required for an Untrippable Control Rod

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Verify Calculation of Compensation Required for an Untrippable Control Rod

Alternate Path: NONE

Facility JPM #:   RTB-02N.JPM

K/A: 001A2.03   Importance: SRO: 4.2   RO: 3.5

K/A Statement: Ability to (a) predict the impacts of the following malfunction or operations on the CRDS, and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Effect of stuck or misaligned rod.

Task Standard: EM-04-08 Attachment 1 reviewed and determined to be performed improperly.

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: EM-04-08, Shutdown Margin Requirements
Technical Data Book

Validation Time: __20__ minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                      Signature

Tools/Equipment/Procedures Needed:

Calculator
Ruler

Also see **Simulator Operator Instructions** (last page of this document).

EXAMINER COPY ONLY

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:

Rod #6 is inoperable and fully withdrawn. It is believed that the rod is untrippable. Burnup is 6955 MWD/MTU. Reactor power is 40%, PCS Boron is 836 ppm. All rods are out, and equilibrium Xenon conditions exist. Reactor Engineering is NOT available.

INITIATING CUES:

You have directed the Reactor Operator to determine the compensation for shutdown margin required for Control Rod #6 utilizing EM-04-08. Review the calculation using the given Attachment 1 of EM-04-08.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtain current procedure.	___ Obtains EM-04-08 and refers to Section 7.2.3 and Attachment 1. ___ Obtains Technical Data Book.	S U
Comment:			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
Att. 1 **Sect.1**	Verifies data in Section 1 for Untrippable Control Rod Identification.	Verifies Group "A", Number "6" , Condition "Untrippable" entered in Section 1.	S U
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
Sect. 2	Verifies data in Section 2 for Worth of Untrippable Rod	___ Refers to TDB Fig. 1.1. ___ Verifies Worth of Untrippable rod entered as 1.19.	S U
Comment: **TDB = Technical Data Book**			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
Sect. 3	Verifies data in Section 3 for Source of Untrippable Control Rod Worth.	Verifies source of data entered as "Technical Data Book", Figure 1.1.	S U
Comment:			

Proc.Step	TASK ELEMENT 5	STANDARD	Grade
4.A	Verifies data in Section 4.A for Current Cycle Burnup.	Verifies "6955" entered in Section 4.A.	**S U**
Comment:			
Note: Data given in Initial Conditions.			

Proc.Step	TASK ELEMENT 6	STANDARD	Grade
4.B	Verifies data in Section 4.B for Current Reactor Power Level.	Verifies "40" entered in Section 4.B.	**S U**
Comment:			
Note: Data given in Initial Conditions.			

Proc.Step	TASK ELEMENT 7	STANDARD	Grade
4.C	Verifies data in Section 4.C for Control Rod Worth Inserted into Core.	Verifies "0" entered as Worth, Group as "4", and Inches as "131".	**S U**
Comment:			
Note: Data given as "all rods out" in Initial Conditions.			

Proc.Step	TASK ELEMENT 8	STANDARD	Grade
4.D	Verifies data in Section 4.D for PCS Boron Concentration.	Verifies "836" entered in Section 4.D.	S U
Comment:			

Proc.Step	TASK ELEMENT 9	STANDARD	Grade
5.E	Verifies data in Section 5.E for Worth of All Control Rods.	___ Refers to TDB, Fig. 1.1. ___ Verifies "7.08" entered in Section 5.E.	S U
Comment:			

Proc.Step	TASK ELEMENT 10	STANDARD	Grade
5.F	Verifies data in Section 5.F for Maximum Worth of Stuck Rod.	Verifies Worth entered as "1.19" in 5.F.	S U
Comment:			

Proc.Step	TASK ELEMENT 11	STANDARD	Grade
5.G	Verifies data in Section 5.G for PCS Boron at 100% Power.	___ Refers to TDB Fig. 6.1. ___ Verifies "780" entered in 5.G	S U
Comment:			

Proc.Step	TASK ELEMENT 12	STANDARD	Grade
5.H	Verifies data in Section 5.H for Power Defect at 100% Power.	___ Refers to TDB Fig. 3.2. ___ Verifies "1.565 " entered in 5.H.	**S U**
Comment:			

Proc.Step	TASK ELEMENT 13	STANDARD	Grade
5.I	Verifies data in Section 5.I for Power Defect.	Verifies calculated value of "0.626" entered in 5.I.	**S U**
Comment:			

Proc.Step	TASK ELEMENT 14	STANDARD	Grade
6.K	Verifies data in Section 6.K for Net Amount of Shutdown Margin.	Verifies calculated value of "2.728" entered in 6.K.	**S U**
Comment:			

Proc.Step	TASK ELEMENT 15	STANDARD	Grade
6.L	Verifies data in Section 6.L for Worth of Untrippable Control Rod.	Verifies "1.19" entered in 6.L.	**S U**
Comment: *Note: Previously determined data (Section 2).*			

Proc.Step	TASK ELEMENT 16	STANDARD	Grade
6.M	Verifies data in Section 6.M for Excess Shutdown Margin.	Calculates value of "1.538" and determines value has been entered INCORRECTLY as "0.538".	S U

Comment:

Note: **If candidate returns the Attachment to you at this point, provide CUE: "Note the error and continue your review to determine if there are any additional errors."**

CRITICAL STEP

Proc.Step	TASK ELEMENT 17	STANDARD	Grade
8.R	Verifies data in Section 8.R for PPC PDIL.	___ Refers to TDB, Fig. 1.9. ___ Verifies Group as "4", and Inches as "25" entered in 8.R.	S U

Comment:

NOTE: Section 7 is NOT required.

Proc.Step	TASK ELEMENT 18	STANDARD	Grade
8.S	Verifies data in Section 8.S for Control Rod Position Corresponding to Excess Shutdown Margin.	___ Refers to TDB, Fig. 1.3. ___ Determines that actual value should be Group 3 at 8 inches and NOT as entered on the completed Attachment.	S U

Comment:

Note: **Error carried forward from previous error.**

CRITICAL STEP

Proc.Step	TASK ELEMENT 19	STANDARD	Grade
8.T	Verifies data in Section 8.T for PDIL for Untrippable Control Rod Condition.	Determines value should be Group 4 at 25 inches and NOT as entered on the completed Attachment.	S U

Comment:

Note: ***These values previously determined.***

CRITICAL STEP

Proc.Step	TASK ELEMENT 19	STANDARD	Grade
---	Return attachment to Reactor Operator.	Attachment returned to Reactor Operator for corrections.	S U

Comment:

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

CANDIDATE CUE SHEET

INITIAL CONDITIONS:

Rod #6 is inoperable and fully withdrawn. It is believed that the rod is untrippable.
Burnup is 6955 MWD/MTU. Reactor power is 40%, PCS Boron is 836 ppm. All rods
are out, and equilibrium Xenon conditions exist. Reactor Engineering is NOT available.

INITIATING CUES:

You have directed the Reactor Operator to determine the compensation for shutdown
margin required for Control Rod #6 utilizing EM-04-08. Review the calculation using the
given Attachment 1 of EM-04-08.

SIMULATOR OPERATOR INSTRUCTIONS

● Simulator not required for this JPM.

● Ensure Technical Data Book is available. Insert a new Figure 1.10 that shows burnup at 6955MWd/MTU.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO A.1-2

TITLE: Perform PCS Heatup Determination

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Perform PCS Heatup Determination

Alternate Path: NONE

Facility JPM #:   JPMRO-A.1-12000Cert

K/A: 2.1.25   Importance: SRO: 3.1   RO: 2.8

K/A Statement: Ability to obtain and interpret station reference materials such as graphs, monographs, and tables which contain performance data.

Task Standard: Allowable Shutdown Cooling outage time calculated to be 44 minutes (40 minutes to 48 minutes).

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: SOP-3, "Safety Injection and Shutdown Cooling System"
ONP-17, "Loss of Shutdown Cooling"

Validation Time: __15__ minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                          Signature

Tools/Equipment/Procedures Needed:

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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:

Fifteen days after a plant shutdown, PCS temperature is 120ºF. The Reactor cavity is flooded to a level of 633'. The Pressurizer manway is removed. Shutdown Cooling is in operation, but must be shutdown for the maximum time allowable.

INITIATING CUES:

You have been directed to determine how long (in minutes) Shutdown Cooling may be shutdown in accordance with SOP-3, Section 7.3.7.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtain current copy of procedure.	Obtains SOP-3, and refers to Section 7.3.7.	S U
Comment:			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
7.3.7.a	Determine "Approximate Time to 200ºF" time from appropriate curve in ONP-17 and convert to hours.	___ Refers to ONP-17, Attachment 1. ___ Uses curve labeled Refueling Cavity Flooded to 632' to determine time to 200ºF. ___ Uses "15 Days" curve and 120ºF point and determines time to 200ºF is ~3 hours **CRITICAL STEP**	S U
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
7.3.7.b	Determine PCS heatup rate.	Heatup rate calculated to be ~27ºF / hour.	S U
Comment: **NOTE: Heatup rate is calculated by dividing 80ºF (200ºF - 120ºF) by 3 hours.** **CRITICAL STEP**			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
7.3.7.c	Determine allowable Shutdown Cooling outage time.	Calculates allowable Shutdown Cooling outage time to be 44 minutes (40 - 48 minutes).	**S U**

Comment:

NOTE: **Allowable outage time calculated by dividing 20ºF (maximum allowed heatup) by 27ºF / hour (previously calculated heatup rate) and converting to minutes.**

CRITICAL STEP

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

CANDIDATE CUE SHEET

INITIAL CONDITIONS:

Fifteen days after a plant shutdown, PCS temperature is 120ºF. The Reactor cavity is flooded to a level of 633'. The Pressurizer manway is removed. Shutdown Cooling is in operation, but must be shutdown for the maximum time allowable.

INITIATING CUES:

You have been directed to determine how long (in minutes) Shutdown Cooling may be shutdown in accordance with SOP-3, Section 7.3.7.

SIMULATOR OPERATOR INSTRUCTIONS

Simulator not required for this JPM.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO A.2

TITLE: Hot Work Permit Authorization

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Hot Work Permit Authorization.

Alternate Path: N/A

Facility JPM #:   NEW

K/A: 2.4.25   Importance: SRO: 3.4   RO: 2.9

K/A Statement: Knowledge of fire protection procedures.

Task Standard: Hot Work Permit is NOT approved due to errors on the permit form.

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: FPIP-7, "Fire Prevention Activities"

Validation Time: __10__ minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                        Signature

Tools/Equipment/Procedures Needed:

NOTE: Provide candidate with a completed Hot Work Permit request for review.

EXAMINER COPY ONLY

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 in MODE 5 for a refueling outage. One of the cable tray supports above LCC-12 has been identified as needing repair. There is no other work in progress in the Cable Spreading Room.

INITIATING CUES:

As the SRO in the Work Control Center, you have been given a Hot Work Permit request for your review and authorization.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtains current procedure.	Obtains FPIP-7 and refers to Section 9.2 and 9.3.	S U

Comment:

NOTE: Acceptable to refer to any or all procedure sections.

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
---	Conducts Hot Work Permit review.	Review the Hot Work Permit and notes at least one the following: ___ Fire Watch listed as "None required" is NOT acceptable. At least one dedicated Fire Watch is required. ___ Portable Fire Extinguishers Required box is checked Yes, but information on Type, Fire Ext. No., and Last Inspection Date is missing.	S U

Comment:

Note: It is acceptable for the candidate to identify only one or more than one error. The key factor is to NOT approve the permit for any valid reason. Candidate may terminate the review as soon as the first error is detected - this is also acceptable.

CRITICAL STEP

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
---	Evaluates Hot Work Permit request for authorization.	Hot Work Permit request is NOT approved without corrections being made.	S U

Comment:

CRITICAL STEP

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

INITIAL CONDITIONS:

The plant is in MODE 5 for a refueling outage. One of the cable tray supports above LCC-12 has been identified as needing repair. There is no other work in progress in the Cable Spreading Room.

INITIATING CUES:

As the SRO in the Work Control Center, you have been given a Hot Work Permit request for your review and authorization.

SIMULATOR OPERATOR INSTRUCTIONS

Use of Simulator NOT required.

MAKE SURE that the KEY is NOT provided to candidate. Prepare a FPIP-7, Attachment 3, per the key, but MINUS the identification of errors. These two errors are identified on the KEY by being enclosed in parentheses.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO A.3

TITLE: Determine Expected Dose for Equipment Inspection

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Determine Expected Dose for Equipment Inspection

Alternate Path: NONE

Facility JPM #:   NEW

K/A: 2.3.10   Importance: SRO: 3.3   RO: 2.9

K/A Statement: Ability to perform procedures to reduce excessive levels of radiation

Task Standard: Expected dose is calculated to be 5 mR.

Preferred Evaluation Location: Simulator   _X_   In Plant   _____

Preferred Evaluation Method: Perform   _X_   Simulate   _____

References: Health Physics Procedure 2.14, "Radiological Surveys"

Validation Time: __20__ minutes   Time Critical: NO

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT _____

Comments:

Examiner: _____   Date: _____
                                Signature

Tools/Equipment/Procedures Needed:

EXAMINER: **Provide the attached "Radiological Area Status Sheet" to candidate upon request.**

EXAMINER COPY ONLY

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 a refueling outage. Work is in progress on P-67A Low Pressure Safety Injection Pump. A report has been received in the Control Room that scaffold erecting activities may have damaged the seal cooler and seal injection lines for P-67A.

INITIATING CUES:

You have been assigned the task of inspecting P-67A seal cooler and seal injection lines for damage. This will require close inspection (within 2 feet of pump skid area next to the seal cooler), but you are NOT to cross any contamination boundary. The inspection is expected to require 15 minutes to complete.

Determine the maximum expected radiation dose you will receive for this task.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Obtains correct survey map for P-67A.	Obtains "Radiological Area Status Sheet" for East Engineering Safeguards.	S U
Comment:			
CUE: **Provide candidate with attached Radiological Area Status Sheet.**			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
---	Determine dose rate near the component.	Dose rate determined to be 20 mRem/hr.	S U
Comment:			
CUE: **Provide candidate with attached photograph of P-67A skid.**			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
---	Calculates expected dose.	Expected dose calculated to be 5 mRem.	S U
Comment:			

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

CANDIDATE CUE SHEET

INITIAL CONDITIONS:

The plant is a refueling outage. Work is in progress on P-67A Low Pressure Safety Injection Pump. A report has been received in the Control Room that scaffold erecting activities may have damaged the seal cooler and seal injection lines for P-67A.

INITIATING CUES:

You have been assigned the task of inspecting P-67A seal cooler and seal injection lines for damage. This will require close inspection (within 2 feet of pump skid area next to the seal cooler), but you are NOT to cross any contamination boundary. The inspection is expected to require 15 minutes to complete.

Determine the maximum expected radiation dose you will receive for this task.

SIMULATOR OPERATOR INSTRUCTIONS

Simulator NOT required for this JPM.

REGION III

INITIAL LICENSE EXAM

JOB PERFORMANCE MEASURE

JPM SRO A.4

TITLE: Classify Event and Determine PARs

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: Classify an Event and Determine PARs - Protective Action Recommendations

Alternate Path: N/A

Facility JPM #:   Bank 2001NRC

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 threshholds and classifications.
(2.4.44) Knowledge of emergency plan protective action recommendations.

Task Standard: Event classified as a General Emergency and PARs are evacuation of 2 mile radius and 5 miles in Areas 1 and 2.

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: __30__ minutes   Time Critical: YES

Candidate: _____

Time Start: _____   Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT_____   UNSAT_____

Comments:

Examiner: _____   Date: _____
                                Signature

EXAMINER COPY ONLY

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. The Reactor has tripped.
2. A LOCA is in progress.
3. Pressurizer level is offscale LOW.
4. PCS pressure is 100 psia.
5. CETs indicate 600ºF.
6. Total LPSI/HPSI flow is inadequate per EOP Supplement 4.
7. SIRW tank level is 38% and lowering slowly.
8. Containment isolation has occurred as designed and EOP Supplement 6 for Containment Isolation is in progress.
9. An actual release is NOT occurring through the plant stack or steam dumps.
10. Containment Gamma Monitors (RIA-2321 and 2322) are indicating 5E4R/hr.
11. Reactor Vessel Level Monitoring System (RVLMS) indicates ALL red lights
12. Failed fuel analysis is in progress with no results to report yet.
13. Obtained Meteorological Data is as follows:
    ● QN = 0.0
    ● QI = 0.0
    ● Wind Speed = 1.1
    ● Stability Class = G
    ● Wind Direction = 235 (from)
    ● Weather is clear with no precipitation.

INITIATING CUES:

During activation of the Site Emergency Plan, you are the Shift Supervisor (acting as the Site Emergency Director). You are to classify the event given the above information and determine any required Protective Action Recommendations, and complete an Event Notification Form. No previous event declaration has been made. This JPM is Time Critical.

Proc.Step	TASK ELEMENT 1	STANDARD	Grade
---	Locates procedure to determine Emergency Classification.	Locates EI-1 and refers to Attachment 1.	**S U**
Comment:			

Proc.Step	TASK ELEMENT 2	STANDARD	Grade
---	Refers to "Fission Product Barriers/Fuel Damage"	Refers to page 7 of EI-1, Attachment 1.	**S U**
Comment:			

Proc.Step	TASK ELEMENT 3	STANDARD	Grade
---	Determines status of fission product barriers.	___ Refers to Table 1 ___ Determines a LOSS of Fuel Cladding (based on Containment Gamma monitors readings. ___ Determines a LOSS of PCS Barrier (based on leak rate and PCS subcooling). ___ Determines a POTENTIAL LOSS of Containment Barrier (based on Containment Gamma monitors readings).	**S U**
Comment: **CUE:** **If candidate refers to EI-11: "That procedure will be performed by the TSC."**			

Proc.Step	TASK ELEMENT 4	STANDARD	Grade
---	Declares correct Emergency Classification.	Declares a GENERAL EMERGENCY based on status of fission product barriers (loss of TWO and potential loss of THIRD).	**S U**
Comment: **CRITICAL STEP**			

Proc.Step	TASK ELEMENT 5	STANDARD	Grade
---	Prepares Emergency Actions/Notifications form.	Obtains EI-1, Attachment 2 and fills out per attached KEY.	**S U**
Comment: **Note:** **(Filling out this form is NOT required for this JPM; however a key is attached in case candidate fills out the form.)** **It is NOT the intent of this JPM to have candidate actually make the notifications.**			

Proc.Step	TASK ELEMENT 6	STANDARD	Grade
---	Prepares Event Notification Form.	Obtains EI-3, Attachment 1 and fills out per attached KEY.	**S U**
Comment: **Note:** **KEY is attached to this JPM.** **EI-3, Attachment 1.1, "Palisades Event Technical Data Sheet" is NOT required during this JPM.**			

Proc.Step	TASK ELEMENT 7	STANDARD	Grade
---	Determines Protective Action Recommendations (PARs).	Obtains EI-6.13, Attachment 1 and determines: ___ Severe core damage exists. ___ Evacuate 2 Mile Radius and 5 mile in Affected Areas (1 and 2).	S U
Comment: **CRITICAL STEP**			

Proc.Step	TASK ELEMENT 8	STANDARD	Grade
---	Completes filling out Palisades Event Notification Form.	Palisades Event Notification Form completely filled per attached KEY.	S U
Comment: **CRITICAL STEP**			

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER UPON COMPLETION OF TASK)

CANDIDATE CUE SHEET

INITIAL CONDITIONS:

1. The Reactor has tripped.
2. A LOCA is in progress.
3. Pressurizer level is offscale LOW.
4. PCS pressure is 100 psia.
5. CETs indicate 600ºF.
6. Total LPSI/HPSI flow is inadequate per EOP Supplement 4.
7. SIRW tank level is 38% and lowering slowly.
8. Containment isolation has occurred as designed and EOP Supplement 6 for Containment Isolation is in progress.
9. An actual release is NOT occurring through the plant stack or steam dumps.
10. Containment Gamma Monitors (RIA-2321 and 2322) are indicating 5E4R/hr.
11. Reactor Vessel Level Monitoring System (RVLMS) indicates ALL red lights
12. Failed fuel analysis is in progress with no results to report yet.
13. Obtained Meteorological Data is as follows:
    - QN = 0.0
    - QI = 0.0
    - Wind Speed = 1.1
    - Stability Class = G
    - Wind Direction = 235 (from)
    - Weather is clear with no precipitation.

INITIATING CUES:

During activation of the Site Emergency Plan, you are the Shift Supervisor (acting as the Site Emergency Director). You are to classify the event given the above information and determine any required Protective Action Recommendations, and complete an Event Notification Form. No previous event declaration has been made. This JPM is Time Critical.

SIMULATOR OPERATOR INSTRUCTIONS

● No Simulator setup required.

● It is preferred that this JPM be done separately from the simulator. If, by chance, candidate IS in the simulator while doing this JPM, THEN ensure the IC does NOT have a release in progress.