Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-NIS**

Task Title: **Calculate Tq using the excore NIs**

Task Number: 204.129

K/A Reference: 015K5.16 (2.9, 3.4)

Method of testing:

Simulated Performance: _____ Actual Performance: ___√___

Classroom: ___√___ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **Unit 1 has been operating at 70% power for several weeks to support SGFP maintenance.**
2. **The plant computer has "crashed" and is inoperable.**
3. **You are performing the duties of the Unit-1 RO**
4. **The LAN is down and "OPS CALC" is not available.**

Initiating Cue:

AOP-7H has been implemented and the CRS directs you to determine the azimuthal power tilt (Tq) using the excore NIs per Block Step IV.F.

Task Standard:

This JPM is complete when calculated azimuthal power tilt (Tq) is determined to be within acceptable limits per AOP-7H Step IV.F.

Evaluation Criteria:

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

Required Materials:

1. **Calculator**
2. **Blank AOP-7H Attachment 5**

General References:

1. **AOP-7H**
2. **NEOP-13**

Time Critical Task:

No

Validation Time:

15 minutes

Simulator Setup:

None

ELEMENT (* = CRITICAL STEP)		STANDARD
TIME START _____		
____	Locate AOP-7H Section IV.F.	Same as element.

CUE: The excore detector readings below are to be used on the attachment.

(3) Excore detectors are operable with the following readings:

"A" upper:	69.3%
"B" upper:	69.2%
"C" upper:	69.5%
"A" lower:	70.1%
"B" lower:	69.9%
"C" lower:	70.6%

CUE: When asked, Channel D is inoperable, and the LAN is down so Ops calc cannot be used

_____	1.	**IF ALL** four Linear Power Channels are operable, **THEN** perform the following:	Determines only three (3) channels are operable and step is not applicable.
_____	1.1.	**IF** only 3 Linear Power Channels are operable AND Reactor Power is less than 75% , THEN calculate Tq using three Excore detectors as follows:	Determines this step is applicable
_____	1.2.	**IF** only 3 Linear Power Channels are operable AND Reactor Power is greater than 75% …..	Determines this step is not applicable
_____	.	Record the readings on ATTACHMENT (5), Tq CALCULATION USING EXCORE DETECTORS.	Records Readings on Attachment 5.
_____	* ____	Calculate an upper **AND** a lower Tq using the method in ATTACHMENT (5), Tq CALCULATION USING EXCORE DETECTORS.	Calculates Upper Tq to be **0.00322** (± .0005) if using CUE values. Calculates Lower Tq to be **0.00732** (± .0005) if using CUE values.

____ 2. **IF** Tq is greater than 0.03, Determines Tq is less than 0.03.

TIME STOP _____

Examiner Note:	This JPM is complete when calculated azimuthal power tilt (Tq) is determined to be within acceptable limits per AOP-7H Step IV.F. No further actions are required. The operator is expected to end the JPM.

Verification of Completion

Job Performance Measure Number: **2008-NIS**

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

a. Unit 1 has been operating at 70% power for several weeks to support SGFP maintenance.

b. The plant computer has "crashed" and is inoperable.

c. You are performing the duties of the Unit-1 RO.

d. The LAN is down and "OPS CALC" is not available.

INITIATING CUE:

Initiating Cue: AOP-7H has been implemented and the CRS directs you to determine the azimuthal power tilt (Tq) using the excore NIs per Block Step IV.F. Are there any questions? You may begin.

CUE SHEET FOR JPM 2008-NIS

A	B	C	D
U L	U L	U L	U L
69.3%- 70.1%	**69.2% 69.9%**	**69.5%- 70.6%**	**OOS OOS**

"A" upper: 69.3%

"B" upper: 69.2%

"C" upper: 69.5%

"A" lower: 70.1%

"B" lower: 69.9%

"C" lower: 70.6%

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-TTB-RO**

Task Title: **Determine Time to Boil**

Task Number: **064.008**

K/A Reference: **K/A 2.1.25 (3.9, 4.2)**

Method of testing:

Simulated Performance: _____ Actual Performance: ___√___

Classroom: ___√___ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **Unit one is in reduced inventory at 41 feet.**
2. **Containment closure deviations exists**
3. **Reactor has been shutdown for 5 days**
4. **RCS is at 120° F**
5. **It is near the end of your shift**
6. **The LAN is down, Ops calc is not available**

Initiating Cue:

The CRS has directed you to calculate a time to boil (shiftly) for the turnover sheet.

Task Standard:

Correctly determine time to boil in accordance with OP-7 , or AOP-3B.

Evaluation Criteria:

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

Required Materials:

1. **OP-7 revision 42**
2. **OP-7 Table 3 revision 42**
3. **OP-7 Figure 1 revision 42**
4. **AOP-3B revision 22, attachments 8 and 10**
5. **NO-1-200 revision 34, attachment 31, Lower Mode Checklist**

General References:

1. **OP-7 revision 42**
2. **NO-1-200 revision 34, Shift Turnover Sheet**

Time Critical Task:

No

Validation Time:

15 minutes

Simulator Setup:

None

ELEMENT (* = CRITICAL STEP)			STANDARD

TIME START _____

CUE: When the applicant identifies and locates OP-7 Figure 1, and OP-7 Table 3, OR AOP-3B attachments 8 and 10, provide the applicant with a working copy of the appropriate figure and/or attachments.

CUE: Provide applicant with copy of attachment 31, Lower Mode Operation Checklist

_____*	1.	Identify and locate correct procedure.	OP-7., Figure 1, Table -3, OR AOP-3B, attachment 8 and 10.
_____*__	2.	Calculates a Time to Boil using OP-7 Figure 1, and Table -3, or AOP- 3B attachment 8 and 10.	TTB is 21 (± 2) minutes
_____	3.	Records the TTB on the Shift Turnover Sheet	Same as element

TIME STOP _____

TERMINATING CUE:	This JPM is complete when the candidate calculates a TTB and records it on the turnover sheet. No further actions are required.

Verification of Completion

Job Performance Measure Number: 2008-TTB (RO)

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

1. Unit one is in reduced inventory at 41 feet.
2. Containment closure deviations exists
3. Reactor has been shutdown for 5 days
4. RCS is at 120° F
5. It is near the end of your shift

INITIATING CUE:

The CRS has directed you to calculate a time to boil (shiftly) for the turnover sheet.

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-RCP**

Task Title: **Determine if RCP restart criteria are satisfied**

Task Number: **201.028**

K/A Reference: **2.2.44 (4.2, 4.4)**

Method of testing:

Simulated Performance: _____ Actual Performance: ___√___

Classroom: _____ Simulator: ___√_____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **A station blackout resulted in a reactor trip on Unit-1.**
2. **Offsite power has been restored to Unit-1 and it is desired to restart RCPs.**
3. **Component cooling has been restored and RCP seal parameters appear satisfactory.**
4. **You are performing the duties of the Unit-1 CRO/RO.**

Initiating Cue:

The CRS directs you to perform Block Step AA, Evaluate Restoring Forced Circulation, of EOP-7 to determine if RCP restart criteria are satisfied. Are there any questions? You may begin.

Task Standard:

Determine that the current plant conditions and RCP parameters allow the RCPs to be restarted.

Evaluation Criteria:

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

Required Materials:

1. **Procedures and manuals normally available in the control room**

General References:

1. **EOP-7**
2. **OI-1A**

Time Critical Task:

No

Validation Time:

15 minutes

Simulator Setup:

1. Reset the simulator IC-11 (MOC Hot Standby)
2. Secure All RCPs
3. Secure Condensate & Main Feed System & Start 11 or 12 AFW Pump
4. Establish Aux Feed to 11 & 12 S/Gs and stabilize AFW flow.
5. Use Malfunction to lower Condenser Vacuum to Zero
6. Adjust ADVs to establish Tcold at 530°F
7. Ensure pressurizer level is between 155 and 180 inches
8. Freeze simulator
9. Instructor to act as BOP and take care of alarms and maintain temperature

TIME START _____

_____ Locates and identifies EOP-7, Block Step AA. — Same as element.

CUE: The CRS has directed you to evaluate and restart a RCP. CRS directs to start 11A or 11B RCP, preference is 11A.

_____ 1. **WHEN** 500KV offsite power is restored, **THEN** evaluate the need and desirability of restarting RCPs based on the following:

- Adequacy of RCS and Core Heat Removal using natural circulation — Determines it is more desirable to use forced circulation.
- Existing RCS pressure and temperatures — Verifies RCS pressure and temperatures per pump curves (OI-1A or EOP Attachments).

EXAMINER NOTE: CUES are to be provided for RCP seal bleed off temperatures due to simulator setup issues

CUE: When the candidate checks the plant computer for RCP seal bleed off temperatures and goes to the correct group display, provide a cue that the highest Controlled Bleed-off temperature is on 11A RCP at 201°F and stable.

- RCP Controlled Bleed-off temperatures — Looks at Controlled Bleed-off temperatures on Plant Computer.

_____* Evaluates 11A and 11B RCP seal temperatures — Determines that 11A RCP cannot be restarted, informs CRS

_____ 2. **IF** RCP operation is **NOT** desired, — **NOT APPLICABLE**

(NOT APPLICABLE)

_____ 3. **IF** T_{COLD} is less than 369°F, **THEN** restart the RCPs **PER** OI-1A Reactor Coolant System and Pump Operations. — Checks T_{COLD} indications, on 1C06, and determines that T_{COLD} is greater than 369°F.

CUE: SM has determined meggering is not necessary.

_____ 4. **IF** RCPs have been exposed to excessive moisture, — No action required.

CAUTION: If an RCP Controlled Bleed-off temperature exceeds 250°F, the affected seal must be rebuilt before the RCP can be operated. Do NOT restart ANY RCP whose Controlled Bleed-off temperature has exceeded 250°F

CUE: When the candidate checks the plant computer for historical RCP seal bleed off temperatures, provide a cue that: Highest recorded RCP Controlled Bleed-off temperature was 242°F on 11B RCP.

_____5. Check Controlled Bleed-off temperatures for the RCPs to be restarted have **NOT** exceeded 250°F.

Asks which RCPs are to be restarted and refers to step Q of EOP-7 for bleed-off temperature data or asks the CRS.

CUE: When the candidate checks the plant computer for 11B RCP seal bleed off temperatures, provide a cue that: 11B RCP Controlled Bleed-off temperature is 192°F and lowering.

_____ 6. Verify RCP Controlled Bleed-off temperatures are less than 200°F or are lowering.

Checks control bleed-off temperatures indication on plant computer.

CUE: If pressurizer level is not above 155 inches direct, applicant to start 13 charging pump and raise pressurizer level to > 155 inches

_____ 7. Raise Pressurizer level to between 155 and 180 inches.

Checks the chart and level indication, on 1C06, to determine pressurizer level.

____* 8. Reduce T_{COLD} to less than 525°F.

Operates ADVs in MANUAL to reduce T_{COLD} to less than 525°F.

_____ 9. Verify RCP restart criteria are met by **ALL** of the following:

_____ • Verify electrical power is available to the RCPs.

- RCP BUS
- MCC-115 (ALL RCPs)
- MCC-105 (11A/11B RCP)

Checks that 13KV Bus is energized and either the normal or alternate RCP feeder breaker shut.

_____ _____ • 12/22 SERV BUS VOLTS is less than 14.8 KV.

Checks 12/22 SERV BUS volts are less than 14.8 at 1C19.

_____ _____ • 4KV Vital Bus voltage is greater than 4100 volts.

Checks 11 and 14 4KV Bus voltage indication, on 1C18 and 1C19.

CUE: When the candidate checks the plant computer for 11B RCP seal bleed off temperatures and goes to the correct group display, provide a cue that: 11B RCP Controlled Bleed-off temperature is 192°F and lowering.

_____. _____ • RCP Controlled Bleed-off temperatures are less than 200°F.

Checks Controlled Bleed-off temperature indications on the plant computer.

ELEMENT (* = CRITICAL STEP)		STANDARD
_____	• RCS subcooling is greater than 30°F based on CET temperatures.	Determines that subcooling is ~92°F by either using the steam tables or checking CET subcooling indication, on 1C05.
_____	• At least ONE S/G is available for heat removal. · S/G level greater than (-) 170 inches · capable of being supplied with feedwater · capable of being steamed	Checks S/G level, ADV status and auxiliary feedwater status, on 1C03 and 1C04, to determine that both S/Gs are available for heat removal.
_____	• Pressurizer level is greater than 155 inches and **NOT** lowering.	Checks Pressurizer level indication, on 1C06, (1-LI-110X(Y) or digital) to determine pressurizer level at 160 and steady.
_____	• T_{COLD} is less than 525°F.	Checks T_{COLD} indication, on 1C06, to determine T_{COLD} to be 520°F.
_____	• RCS temperature and pressure are greater than the minimum operating limits **PER** ATTACHMENT (1), RCS PRESSURE TEMPERATURE LIMITS, for the pumps to be started.	Refers to Attachment (1) and determines that RCS pressure is greater than the minimum required and 11B RCP can be started.
_____ *	Informs the CRS that 11B RCP can be started	Same as element

TIME STOP _____

Examiner Note:	The JPM is complete when it is determined that all RCP restart criteria are met for 11B RCP. No further actions are required.

Verification of Completion

Job Performance Measure Number: **2008-RCP**

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

a. A station blackout resulted in a reactor trip on Unit-1.

b. Offsite power has been restored to Unit-1 and it is desired to restart RCPs.

c. Component cooling has been restored and RCP seal parameters appear satisfactory.

d. You are performing the duties of the Unit-1 CRO/RO.

INITIATING CUE:

The CRS directs you to perform Block Step AA, Evaluate Restoring Forced Circulation, of EOP-7 to determine if RCP restart criteria are satisfied. Are there any questions? You may begin.

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-RAD**

Task Title: **Determine Proper Radiological Controls associated with manipulating a valve in the RCA**

Task Number: **NA**

K/A Reference: **2.3.7 (3.5, 3.6)**

Method of testing:

Simulated Performance: _____ Actual Performance: __√__

Classroom: __√__ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. You have been assigned to enter the RCA and verify 1-SI-475 is shut
2. Identify appropriate radiological controls associated with this evolution , including:
    a. Protective Clothing required
    b. Dosimetry required
    c. Hot spots to avoid
    d. Contaminated Areas
    e. General Area Does Rates

Initiating Cue:

The CRS has directed you to verify 1-SI-475 is shut. The CRS has estimated a total time to accomplish this work of ~5 minutes. Identify all appropriate radiological controls as listed above in preparation for a Pre-Job brief.

Task Standard:

This JPM is complete all when radiological controls have been determined and identified

Evaluation Criteria:

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

Required Materials:

1. **Procedures and manuals normally available in the plant**
2. **RWP-2008-0002 Rev 0**
3. **Survey MAP for 5' AUX BLDG Unit-1 VCT Room (Modified to show 60/30 mrem for 1-CVC-500)**
4. **P& ID for SI and CVCS systems**

General References:

1. **RWP-2008-0002 Rev 0**
2. **Survey MAP for 5' AUX BLDG Unit-1 VCT Room**
3. **P& ID for SI and CVC systems**

Time Critical Task:

No

Validation Time:

5 minutes

Simulator Setup:

NONE

JOB PERFORMANCE MEASURE 2008-RAD

ELEMENT (* = CRITICAL STEP)	STANDARD

TIME START ____

CUE: **You are assigned to verify shut 1-SI-475**

CUE: **Provide the candidate with several RWPs including RWP # 2008-002:**

____* 1. Candidate refers to the proper RWP	Locates the Ops RWP 2008-0002 Rev 0

CUE: Provide the candidate with several MO's including correct MO:

____* 2. Reviews survey sheet for specific areas to be entered	Locates appropriate survey map and determines that a contaminated area must be entered, and a high radiation area is located near the strainer, but he will NOT enter a high radiation area and/or south end of VCT room.
____* 3. Candidate identifies protective clothing requirements	Candidate determines that Full Anti-Cs are required, or partials as per RP
____* 4. Candidate identifies the general area dose levels	Candidates determines that the general area dose rate is 10 MR/hr
____* 5. Candidate determines dosimetry required.	Candidate determines TLD & EPD are required for en try and NO other dosimetry is required.

TIME STOP ____

TERMINATING CUE:	This JPM is complete when candidate has identified all radiological controls listed above for entering the RCA, evaluator will terminate this JPM.

NOTE TO EXAMINER: Collect the applicant work sheet at the completion of the JPM

Verification of Completion

Job Performance Measure Number: **2008-RAD**

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

Initial Conditions:

1. You have been assigned to enter the RCA and verify 1-SI-475 is shut
2. Identify appropriate radiological controls associated with this evolution , including:

    a. Protective Clothing required
    b. Dosimetry required
    c. Hot spots to avoid
    d. Contaminated Areas
    e. General Area Does Rates

INITIATING CUE:

The CRS has directed you to verify 1-SI-475 is shut. The CRS has estimated a total time to accomplish this work of ~5 minutes. Identify all appropriate radiological controls as listed above in preparation for a Pre-Job brief.

Applicants Work Sheet

Identify appropriate radiological controls associated with this evolution, including:

a. Protective Clothing required

b. Dosimetry required

c. Hot spots to avoid

d. Contaminated areas

e. General Area dose levels

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-RM -SRO**

Task Title: **Determine if a reportable event has occurred**

Task Number: **204.025**

K/A Reference: **2.1.18 (3.6, 3.8)**

Method of testing:

Simulated Performance: ___√___ Actual Performance: _____

Classroom: ___√_____ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **Unit 1 and 2 are operating at 100% Power, and have been for the past 5 months**
2. **On Day shift today (6/15/2008) at 0730 a representative from Safety and Health has informed you of a false positive error on a blind performance test specimen that was sent to the lab for testing. A Condition Report (CR) has been written.**

Initiating Cue:

You are the Shift Manager and have received notification via a condition report (CR) of a false positive error on a blind performance test specimen. You are evaluating this issue for potential reportability, and if reportable, then complete the appropriate administrative paperwork.

Task Standard:

The JPM is complete when the conditions have been analyzed to determine that a 1-hour reportable event has occurred under Fitness for Duty, and part A of attachment 1 is complete. The evaluator is expected to end the JPM. No further actions are required.

Evaluation Criteria:

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

Required Materials:

1. **Procedures and manuals normally available in the control room**
2. **CR documenting the condition**
3. **Event # for log**

General References:

1. **CNG-NL-1.01-1004**

Time Critical Task:

Yes

Validation Time:

15 minutes

Simulator Setup:

NONE

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE CNG-NL-07-01

ELEMENT (* = CRITICAL STEP)	STANDARD

TIME START _____

____ Identify and locate CNG-NL-1.01-1004

CUE: Provide copy of Condition Report

CUE: If asked to discuss event with Safety and Health department, inform candidate that event was that we received report of a false positive on a blind performance test specimen that should have been a negative result. The lab reported the test as positive. The cause was an administrative error.

A.	Upon becoming aware of a potentially reportable event or concern. the Shift Manager shall:	Reviews the Condition Report and determines this is potentially reportable.
1.	Review Attachment 2 to determine if an immediate notification Emergency Notification System (ENS) report to the NRC is required, if a written report is required, or if a report to another agency is required.	Refers to Attachment 2, Immediate Notification and Written Reporting Requirements

ATTACHMENT 2, IMMEDIATE NOTIFICATION AND WRITTEN REPORTING REQUIREMENTS

B. Table of Contents, Item 21"Fitness for Duty"	Using the Table of Contents or by paging through Att. 2, determines the Fitness for Duty section applies.
C. Refers to Appendix A, B.2.8(e)(5)) Events to be reported within 1 hour of discovery:	Determines this event meets the criteria for Appendix a, B.2.8(e)(5)
_____ The NRC Operations Center shall be notified promptly of a false positive error on a blind performance test specimen and the error is determined to be administrative (1-hour ENS Report)	Determines condition applies.
_____* Determines a **1-hour ENS report** is required.	Determines a 1 hour ENS Report is required
_____ Refers to ATTACHMENT 1 , Operations Checklist for Timely Notification "Part A Shift Manager or Designee"	Same as element

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE CNG-NL-07-01

ELEMENT (* = CRITICAL STEP)		STANDARD
_____	Site/Unit	Enters CCNPP/ 1
_____	Date of Discovery	Enters **6/15/2008**
_____	Time of Discovery	Enters "**0730**"
_____	Event Description	Enters description of the event from the CR
_____	RCS Mode	Enters **"MODE 1"**
_____	Power	Enters **"100%"**
_____	Pressure	Enters **"2250 PSIA"**
_____	Temperature	Enters "**570°F**"
_____*	Block 1. Circles " Immediate (1 hr) Notification)	Circles **Immediate (1 Hr Notification)**
_____	Block 10 – Other	**NOT APPLICABLE**
_____*	Applicable Reporting Requirement	Enters **"Fitness for Duty" 10 CFR 26, Appendix A, B.2.8(e)(5)** **(1-hour ENS Report)**
_____	Shift Manager	Enters **" Applicant's Name"**
_____	Date	Enters **"6/15/2008"**
_____	Time	Enters **"Current Time"**

TIME STOP _____

TERMINATING CUE:	The JPM is complete when conditions have been analyzed to determine that the event is reportable via a **1-hour report and Part A of Attachment 1, " Operations Checklist for Timely Notification is completed.** The evaluator is expected to end the JPM. No further actions are required.

Verification of Completion

Job Performance Measure Number: **2008-RM-SRO**

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

1. **Unit 1 and 2 are operating at 100% Power, and have been for the past 5 months**
2. **On Day shift today (6/15/2008) at 0730 a representative from Safety and Health has informed you of a false positive error on a blind performance test specimen that was sent to the lab for testing. A Condition Report (CR) has been written.**

INITIATING CUE:

You are the Shift Manager and have received notification and a condition report (CR) of a false positive error on a blind performance test specimen. You are evaluating this issue for potential reportability. Do you have any questions? You may begin.

Appendix C Job Performance Measure

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-AOP-3B-SRO**

Task Title: **Calculate Time to Core Uncovery**

Task Number: 203.014

K/A Reference: **2.1.20 (4.3 , 4.2)**

Method of testing:

Simulated Performance: _____ Actual Performance: __√__

Classroom: __√__ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **Unit-1 was shutdown 3 days ago for a refueling outage.**
2. **Drain down to install nozzle dams is scheduled for next shift. The pressurizer manway has been removed.**
3. **Initial RCS level is 43', initial temperature is 120°F**
4. **A station blackout has occurred.**
5. **You are performing the duties of an extra SRO on shift.**

Initiating Cue:

Initiating Cue: The CRS has directed you to

- **Calculate a time to core uncovery.**
- **Determine the correct Procedure, Section and Step to maintain core heat removal.**

Task Standard:

This JPM is complete when the candidate has calculated a time to core uncovery and recommends allowing boil off to the center of the hot leg and gravity fill from the RWT as the method for core heat removal

Evaluation Criteria:

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

Required Materials:

1. **OP-7**
2. **AOP-3B**

General References:

1. **OP-7**
2. **AOP-3B**

Time Critical Task:

No

Validation Time:

10 minutes

Simulator Setup:

1. NONE

1.

ELEMENT (* = CRITICAL STEP)			STANDARD
TIME START _____			
CUE: When the candidate identifies and locates Figure 3 and Table 3 of OP-7, OR Attachments 10 and 11 of AOP-3B, supply the candidate with a working copy of each requested procedure.			
____	1.	Identifies correct procedures needed.	OP-7 or AOP-3B
____*	2.	Calculates Time to Core uncovery using OP-7 Table 3 and Figure 3 **or** AOP-3B Attachments 10 and Attachment 11.	Time to core uncover is 182 $^{+/-}$9 minutes
____*	3.	Determines RCS should be allowed to boil off to the middle of the hot leg and the RCS will be gravity filled per AOP-3B. Section IX, step H.	Same as element.

TERMINATING CUE:	This JPM is complete when the candidate states that Core uncovery is approximately 182 minutes and AOP-3B Section IX, step H is used for core heat removal.

TIME STOP _____

Verification of Completion

Job Performance Measure Number: **2008-AOP-3B-SRO**

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

Unit-1 was shutdown 3 days ago for a refueling outage.

1. Drain down to install nozzle dams is scheduled for next shift. The pressurizer manway has been removed.
2. Initial RCS level is 43', initial temperature is 120°F
3. A station blackout has occurred.
4. You are performing the duties of an extra SRO on shift.

INITIATING CUE

The CRS has directed you to:

- Calculate a time to core uncovery.
- Determine the correct Procedure, Section and Step to maintain core heat removal.

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-MNT**

Task Title: **Apply Technical Specifications to a Diesel Generator Failure**

Task Number: **204.094**

K/A Reference: **K/A 2.2.36 (4.2, 4.4)**

Method of testing:

Simulated Performance: _____ Actual Performance: ___√___

Classroom: ___√___ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **Unit 1 &2 are at 100% power.**
2. **2A Diesel Generator failed during an STP O-8A-2 run at 1200 on 6/15/2008 and will require 10 days to fix. All other systems are operable.**
3. **Today is 6/19/2008 at 0430**
4. **23 HPSI pump motor has just been declared inoperable due to the motor being charred**

Initiating Cue:

You are directed to review the CR and notify the Shift Manager of the operational impacts on the units and identify any notifications that are required.

Task Standard:

This JPM is complete when the determination is made that Unit Two is in T.S 3.0.3 and must be in Mode 3 by 1530 on 6/19/08, and the required matrix notifications are identified.

Evaluation Criteria:

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

Required Materials:

1. **Technical Specifications**
2. **Technical Specification Basis**
3. **CR for 23 HPSI failure**
4. **Active Technical Specifications LCOs**

General References:

1. **Technical Specifications**
2. **LOI-212-1-5, "TS Introduction for Licensed Operator Initial Training" Lesson Plan, Revision 12/02/2004, Objective 1.3 - Given a plant or system condition and the Tech Specs be able to apply the appropriate Action requirements.**
3. **NO-1-200, Attachment 13**

Time Critical Task:

No

Validation Time:

15 minutes

Simulator Setup:

None

ELEMENT (* = CRITICAL STEP)		STANDARD
TIME START _____		
CUE: When asked , provide copy of the Active Technical Specification Action Statement		
_____	1. Review Condition Report.	Same as element.
_____	2. Refer to Technical Specifications	Same as element
_____*	3. Identify the TS LCOs that apply.	Determines **TS LCO 3.5.2. Action A.1 applies for 23 HPSI pump**
_____*	4. Review the active technical specification LCO action statements and identifies the TS LCOs Actions that are required.	Determines that TS LCO 3.8.1 Action B.3 must be completed four hours after 23 HPSI is determined to be failed since it is redundant equipment, declare both ECCS trains OOS Determines that T.S. 3.0.3 applies for both ECCS trains being inoperable
_____*	5. Identify the required completion time for the actions.	Determines that required completion time is **4 hours**.tp declare both ECCS trains OOS per 3.8.1 B.3
EXAMINER NOTE: IF NOT PROVIDED BY CANDIDATE, ASK WHEN DO WE NEED TO BE IN MODE #		
_____*	6. Identify when the unit must be in Mode 3	Determines that U-1 must be in Mode 3 at 1530 on 6/19/2008
_____*	7. Reviews NO-1-200 attachment 13 to determine notifications required.	Determines that the following notifications are required: **≤ 24 Hr Tech Spec LCO:** • GS-SO • M-NO • PGM • Other Mngers/NRC/ Sr Safety Specialist/ Dir of Licensing • VP & CNO
_____*	8. Informs the S/M of the required actions per Technical Specifications and the Matrix Notifications	Informs the Evaluator of the required actions per Technical Specifications and the Matrix Notifications

TIME STOP _____

Examiner Note:	The task is complete when the applicant has determined which TS LCOs apply, the LCO actions that must be taken, identifies when the unit must be taken offline, and identifes the required matrix notifications.

Verification of Completion

2008-MNT

Job Performance Measure Number: _____

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

1. Unit 1 &2 are at 100% power.
2. 2A Diesel Generator failed during an STP O-8A-2 run at 1200 on 6/15/2008 and will require 10 days to fix. All other systems are operable.
3. Today is 6/19/2008 at 0430
4. You have just been handed a CR written on 23 HPSI pump motor which was found charred

INITIATING CUE:

You are directed to review the CR and notify the Shift Manager of the operational impacts on the units and identify any notifications that are required.

SA3

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE CP-601(NEW)

TASK: Review and Approve a Liquid Waste Release Permit

PURPOSE: Evaluates an SRO's ability to approve a Liquid Waste Discharge Permit

JOB PERFORMANCE MEASURE
CALVERT CLIFFS NUCLEAR POWER PLANT
LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE CP-601 (NEW)

ELEMENT (* = CRITICAL STEP) STANDARD

PERFORMER'S NAME: _____

APPLICABILITY:

SRO

PREREQUISITES:

Completion of the knowledge requirement of the Initial License class training program for Administrative Procedures.

EVALUATION LOCATION:

_____ PLANT _____ SIMULATOR _____ CONTROL ROOM

EVALUATION METHOD:

_____ ACTUAL PERFORMANCE _____ DEMONSTRATE PERFORMANCE

ESTIMATED TIME TO COMPLETE JPM:	ACTUAL TIME TO COMPLETE JPM:	TIME CRITICAL TASK:
5 MINUTES	____ MINUTES	NO

TASK LEVEL:

TRAIN

TOOLS AND EQUIPMENT:

None

REFERENCE PROCEDURE(S):

CP-601
OI-17C-4

TASK STANDARDS:

This JPM is complete when the attached permit has been reviewed and the candidate does NOT approve the release permit.

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE CP-601 (NEW)

ELEMENT (* = CRITICAL STEP)	STANDARD
START _____	
NOTE : **Provide a copy of the Liquid Waste Release Permit to the candidate**	
*____ 1. Reviews Release Source	Determines release source is correct.
CUE: Recirc time and date are correct and acceptable.	
____2. Reviews recirc start time and date	Same as element
____3. Reviews Pre-release Gamma Scan #	Same as element
CUE: 12 RCWMT level is 31.5 feet.	
*____ 4. Checks Release Source Level	Verifies level in 12 RCWMT
*____ 5. Reviews Discharge Point	Notes unit-1 circ.water
*____ 6. Reviews Min # Circ water pumps required	Determines minimum number of circulating water pumps are NOT running on Unit-1 and notifies technician to make the permit out for Unit-2
TIME STOP _____	
TERMINATING CUE:	This JPM is complete when the when the CRS has identified that the RCWMT cannot be discharged with the given permit. No other action is required

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE CP-601 (NEW)

TASK: Review & Approve a Liquid Waste Release Permit

Document below any instances of failure to comply with industrial safety practices, radiation safety practices and use of event free tools. **NOTE: Violation of safety procedures will result in failure of the JPM.**

NOTES:

DID A NEAR MISS OCCUR DUE TO INAPPROPRIATE PERSONNEL ACTIONS/INACTIONS OR PROCEDURAL QUALITY? YES NO
(If yes, provide comments below)

COMMENTS:

_____

_____

The operator's performance was evaluated against the standards contained in this JPM and determined to be

SATISFACTORY UNSATISFACTORY

EVALUATOR'S SIGNATURE: _____ DATE: _____

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE

DIRECTIONS TO TRAINEE:

1. To complete the task successfully, you must:

   - perform each critical element correctly. You must inform the evaluator of the indications you are monitoring. Where necessary, consider the evaluator to be the CRO.

   - comply with industrial safety practices, radiation safety practices and use of event free tools. **NOTE: Violation of safety procedures will result in failure of the JPM.**

2. Initial Conditions:

   a. Unit 1 is at shutdown for a refueling outage.

   b. Amertap work is being performed in 11B, 12B and 13B waterboxes.

3. Initiating Cue: The shift Chemistry Technician has completed a Liquid Waste Release Permit for discharging 12 RCWMT. You are the Unit-1 CRS and have been requested to review and sign the permit. Are there any questions? You may begin.

LIQUID RADIOACTIVE WASTE RELEASE PERMIT

CHEMISTRY

ATTACHMENT 2

12 RCWMT

LIQUID RADIOACTIVE WASTE BATCH RELEASE PERMIT

PERMIT #: 08 - 0081

Recirc Start Date/Time:	Pre-Release Gamma Scan#: 3100065
Release Source Level: 31.5 feet	Release Volume: 2.767 E5 liters

RELEASE CRITERIA

Discharge Point: Unit 1 ☑ Unit 2 ☐	Min # Circ Water Pumps Required: 5
Dilution Flow Rate Pre-Release: 1E6 gpm	
Maximum Release Flow Rate: **120** gpm	
RMS Number: **0-RE-2201**	
RMS Background: 1500 cpm	
Expected RMS Reading: 1741 cpm	
Adjustable Setpoint: 2612 cpm	

APPROVAL (Release Criteria is within ODCM Requirements)

Independent Verification for Calculations:
Prepared By: Chemistry Tech
Compositor Setup Chemistry Tech 1 Date/Time
Compositor Setup Peer Check By: Chemistry Tech 2 Date/Time
SCO Approval: Date/Time
Release Criteria is understood, Plant Systems are in operation, Required plant configuration for conducting release has been established. Chemistry Tech discussed permit with SRO/SM. SM/CRS: Date/Time
If discharging RCWMT, tank has been flushed thru 0-RI-2201, and response reported to Chemistry. RMS Pre-Op checks have been completed and release criteria reviewed. Correct Setpoints entered in computer and Peer Checked. CRO: Date/Time
Independent Verification of Alarm Setpoints CRO: Date/Time

RELEASE DATA

Release Start Date/Time:	Chemistry Informed	Initial Level:	feet
Release End Date/Time:	Chemistry Informed	Final Level:	feet
RMS Reading Near Start of Discharge	cpm	Time:	
RMS Reading at Midpoint of Discharge	cpm	Time:	
RMS Reading Near End of Discharge	cpm	Time:	
Background Count Rate 0-RE-2201 During DI Flush	cpm		
# Circ Water Pps Operating During Release:		# Saltwater Pps Operating During Release:	

POST RELEASE DATA AND REVIEW

PERMIT COMPLETE. **Release Criteria and Discharge Procedure Requirements Satisfied.** CRO:	
Post Release Gamma Scan #:	Post Release Volume: liters
Post Release Dilution Flow Rate: gpm	Sample Composited (init/date):
Independent Verification for Calculations:	
Permit Closed Out (sign/date):	SCO Approval/Date:

Facility: **Calvert Cliffs 1&2** Job Performance Measure No.: **2008-ERPIP**

Task Title: **Determine Appropriate Emergency Response Actions**

Task Number: **204.097**

K/A Reference: **K/A 2.4.29 (2.6, 4.0)**

Method of testing:

Simulated Performance: _____ Actual Performance: ___√___

Classroom: ___√___ Simulator: _____ Plant: _____

READ TO THE APPLICANT:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. **A total loss of feed flow has occured on Unit-2.**
2. **The reactor tripped on low S/G level at 2355 on 6/14/08 and auxiliary feed failed to initiate automatically or manually**
3. **Once-through core cooling was initiated at 00:30 on 6/15/08**

Initiating Cue:

You are the Shift Manager completing the emergency response initial notification form.

Task Standard:

Determine EAL classification and protective action recommendations and complete the emergency response form.

Evaluation Criteria:

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

Required Materials:

1. **ERPIP 3.0, "Immediate Actions", Revision 04001**
2. **ERPIP 3.0 Attachment 1, "EAL Criteria", Revision 39**
3. **ERPIP Basis**
4. **Blank Copy of ERPIP 3.0 Attachment 3, "Initial Notification Form" (ERPIP 3.0 Pages 19 and 20)**

General References:

1. **ERPIP 3.0, "Immediate Actions", Revision 04 (Pages 18 thru 25)**
2. **ERPIP 3.0 Attachment 1, "EAL Criteria", Revision 39**
3. **ERPIP Basis**

Time Critical Task:

Yes – 15 Minutes to Classify the event , 15 minutes after classification to give form to the examiner

Validation Time:

15 minutes

Simulator Setup:

None

TIME START _____

EXAMINER's NOTE: Read candidate the current time at start of the JPM and record it as start time.

____	1.	Identify and locate ERPIP.	Same as element.
____	2.	Refers to Immediate Actions and identifies the appropriate category from the listing and go to the appropriate Attachment.	Selects and goes to attachment 2, Emergency Classification.

ATTACHMENT 2 EMERGENCY CLASSIFICATION

A. CLASSIFY THE EMERGENCY

NOTE: The decision to classify an emergency may NOT be delegated.

____	*1.0	**EVALUATE** conditions against Attachment 1, Emergency Action Level (EAL) criteria.	Fills in Notification Form to indicate an ALERT classification is warranted under Emergency Director Judgment, once through core cooling initiated A.A.7.1.2

B. IMPLEMENT EMERGENCY RESPONSE PLAN ACTIONS (ATTACHMENT 2)

____	1.0	**If** an EAL is satisfied, **THEN OBTAIN** an Attachment 3, Initial Notification Form (from this procedure).	Determines from above evaluation that an EAL is satisfied and obtains an Initial Notification form from the working copy or the extra forms book.
____		**GO TO** the respective classification tab.	Determines Attachment 11, Alert Actions, is applicable.

ATTACHMENT 11 Alert Actions

____	1.0	**COMPLETE** Attachment 3, page 1 of 2, Initial Notification Form, using directions on page 2 of 2.	Refers to Attachment 3, Initial Notification Form.

NOTE TO EXAMINER: The following page 2 instructions may or may not be referred to as the applicant completes page 1.

ATTACHMENT 3-Page 2

____	1.a.	Item A4 **RETRIEVE** this information from the EAL chart in ERPIP-3.0, Immediate	Enters A.A.7.1.2 on Attachment 3.

Actions, Attachment 1, Emergency Action Level Criteria.

____ 1.b. Item A5

IF any of the following conditions are/have been met, **THEN** Radioactivity is being/has been released:

1) The release flowpath monitor is/was in alarm.

2) The release is/was greater than Technical Specification limits.

3) The release is/was accidental.

Determines that radioactivity is being released.

_____ 1.c. Item A6

IF General Emergency is checked in Item 4, **THEN DETERMINE** appropriate Protective Action Recommmendatein and downwind zones(z) from ERPIP 3.0, Attachment 5, General Emergency Protective Action Recommendations, **AND CHECK** corresponding box (check one box only).

IF General Emergency is not checked in Item 3, **THEN CHECK** "NONE."

Determines that **NONE** is entered

_____ 1.d. Item A7

Emergency Director must sign form after Items 1 through 7 have been completed

Signs Attachment 3 after items 1 through 7 have been completed

ATTACHMENT 3-Page 1

____	1.	Complete Item 1.	Checks "is" in Item 1.
*____	2.	Complete Item 2.	Checks Unit 2
*____	3.	Complete Item 3.	Checks "'Alert"
*____	4.	Complete Item 4.	Enters A.A.7.1.2

*____	5.	Complete Item 5.	Checks “”YES”
*____	5.a	Complete Item 5a	Check “YES”
*____	5.b	Complete Item 5b	Check “AIRBORNE”
*____	6.	Complete Item 6.	Checks ‘NONE
*____	7.	Complete Item 7.	Enter current time

TIME STOP _____

TERMINATING CUE:	This JPM is complete when initial notification form Parts A 1 -7 are completed. No further actions are required.

Verification of Completion

Job Performance Measure Number: 2008-ERPIP

Applicant: _____

NRC Examiner: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Follow up Question: _____

_____

_____

_____

Applicant Response: _____

_____

_____

_____

_____

_____

_____

Result: SAT _____ UNSAT _____

Examiner's Signature and Date: _____

APPLICANT'S CUE SHEET

INITIAL CONDITIONS:

1. **A total loss of feed flow has occured on Unit-2.**
2. **The reactor tripped on low S/G level and auxiliary feed failed to initiate automatically or manually**
3. **Once-through core cooling has been initiated**

INITIATING CUE:

You are to complete the emergency response initial notification form. Are there any questions? You may begin