

ES-301		Administrative Topics Outline	Form ES-301-1
Facility: Calvert Cliffs 1 and 2		Date of Examination:	9/25/00
Examination Level (circle one): RO / SRO		Operating Test Number:	1
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	
A.1	Overtime limits	K/A 2.1.1 // 3.7 Knowledge of overtime limits per admin procedure SE 1-101 "Use of Overtime"	
		K/A 2.1.1 // 3.7 Knowledge of approval authority for overtime authorization	
	Reactor Startup requirements	JPM K/A 2.1.20 // 4.3 Ability to execute procedure steps for Shut Down Margin Determination	
A.2	Surveillance Testing	JPM K/A 2.2.1 // 3.7 Ability to perform pre-startup procedures (STP O-63-1 Remote Shutdown Instrumentation)	
A.3	Radiation Control	K/A 2.3.4 // 2.5 Knowledge of radiation exposure limits and control	
		K/A 2.3.1 // 2.6 Knowledge of 10CFR20 and related facility radiation control requirements	
A.4	ERPIP	JPM K/A 2.4.43 // 2.8 demonstrate knowledge of emergency communications systems	

Calvert Cliffs Nuclear Power Plant
ADMIN A1 Topics
Overtime limits

Knowledge of overtime limits

K/A 2.1.1 [3.7/X.X]

Question a:

Evaluate the following CRO Shift schedule to determine if it is in compliance with SE-1-101

Overtime limits:

	MON	TUE	WED	THU	FRI	SAT	SUN
Start	6 AM	6 AM	6 AM	6 AM	OFF	OFF	6 PM
Finish	6 PM	6PM	10 PM	6 PM	OFF	OFF	6 AM

☐

Satisfactory

☐

Unsatisfactory

Candidate _____

**Calvert Cliffs Nuclear Power Plant
ADMIN A1 Topics
Overtime limits**

Knowledge of overtime limits

K/A 2.1.1 [3.7/X.X]

Question a:

Evaluate the following CRO Shift schedule to determine if it is in compliance with SE-1-101

Overtime limits:

	MON	TUE	WED	THU	FRI	SAT	SUN
Start	6 AM	6 AM	6 AM	6 AM	OFF	OFF	6 PM
Finish	6 PM	6PM	10 PM	6 PM	OFF	OFF	6 AM

12 hours 12 hours 16 hours 12 hours 0 0 12 hours

This exceeds 24 hours in any 48 hour period on 10 AM Thursday
--

Limits:

- >16 hours straight
- >16 hours in any 24 hour period
- >24 hours in any 48 hour period
- >72 hours in any 7 day period

Reference Use Allowed? NO

Reference 1 SE-1-101

Comments:

☐

Satisfactory

☐

Unsatisfactory

Candidate _____

Calvert Cliffs Nuclear Power Plant
ADMIN A1 Topics
Overtime limits
Knowledge of approval authority for overtime authorization

K/A 2.1.1 [3.7/X.X]

Question b:

IF you are to exceed the overtime limits, whose approval is required and when must you get the approval?

☐ Satisfactory

☐ Unsatisfactory

Candidate _____

Calvert Cliffs Nuclear Power Plant
ADMIN A1 Topics
Overtime limits
Knowledge of approval authority for overtime authorization

K/A 2.1.1 [3.7/X.X]

Question b:

IF you are to exceed the overtime limits, whose approval is required and when must you get the approval?

Answer:

1. Must be approved by GS-NPO
2. Attachment 1 from SE-1-101 must be filled out by the individual, justified and approved no more than 24 hours prior to exceeding the overtime limits.

Reference Use Allowed? NO

Reference 1 SE-1-101 Section 5.2 E and G

Comments:

☐

Satisfactory

☐

Unsatisfactory

Candidate _____

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE NEOP-301-3

TASK: 022060501 Verify Shutdown Margin for existing plant conditions (Mode,
Tave, CEA Status) per NEOP 301

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR**JOB PERFORMANCE MEASURE NEOP-301-3**

TASK: 022060501 Verify Shutdown Margin for existing plant conditions (Mode, Tave, CEA Status) per NEOP 301

PERFORMER'S NAME: _____

APPLICABILITY:

RO and SRO

PREREQUISITES:

Completion of the knowledge requirement of the Initial License class training program for Nuclear Engineering Operating Procedures.

EVALUATION LOCATION:

_____ PLANT _____ SIMULATOR _____ CONTROL ROOM

EVALUATION METHOD:

_____ ACTUAL PERFORMANCE _____ DEMONSTRATE PERFORMANCE

**ESTIMATED TIME
TO COMPLETE JPM:**

15 MINUTES

**ACTUAL TIME
TO COMPLETE JPM:**

_____ MINUTES

TIME CRITICAL TASK:

NO

TASK LEVEL:

LEVEL 1

TOOLS AND EQUIPMENT:

Blank copy of NEOP-301 Attachment 2

REFERENCE PROCEDURE(S):

NEOP-301
NEOP-13

TASK STANDARDS:

This JPM is complete when the status of core shutdown margin has been determined.

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE NEOP-301-3

TASK: 022060501 Verify Shutdown Margin for existing plant conditions (Mode, Tave, CEA Status) per NEOP 301

DIRECTIONS TO EVALUATOR:

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE NEOP-301-3

TASK: 022060501 Verify Shutdown Margin for existing plant conditions (Mode, Tave, CEA Status) per NEOP 301

CCNPP LICENSED OPERATOR
JOB PERFORMANCE MEASURE NEOP-301-3

ELEMENT
 (* = CRITICAL STEP)

STANDARD

TIME START _____

_____ Identify and locate NEOP-301.

Same as element.

_____ Refer to NEOP-301 Section 6.2.

Determines that Step 6.2.A is to be performed.

6.2 SHUTDOWN MARGIN (ONE
 UNTRIPPLE CEA) MODES 3, 4 OR 5

CUE: Provide a blank copy of Attachment 2 of NEOP-301.

NOTE: Untripplable CEA(s) will have been determined by following the required actions of AOP-1B, CEA Malfunctions.

1. **VERIFY AND DOCUMENT** on Attachment 2 within one hour after detection and at least once per 12 hours that:

CUE: If checked $T_{AVE} = 532^{\circ}\text{F}$

RCS average temperature (T_{avg}) is acceptable for current operating MODE.

Checks RCS average temperature and records it on attachment 2. Verifies temperature is acceptable for MODE 3.

* _____ RCS soluble boron concentration is greater than or equal to the Shutdown Boron Concentration required for the current burnup from Figure 1-II.A.4 of NEOP-13.

Refers to figure in NEOP-13 and determines that required boron is 1210.3 (Unit 1 cycle 14).

Records the following data on ATTACHMENT 2:

Required boron
 NEOP-13 figure used
 RCS boron concentration

Completes the "Prepared BY" information and forwards the attachment to the CRS.

CCNPP LICENSED OPERATOR**JOB PERFORMANCE MEASURE NEOP-301-3**

ELEMENT

STANDARD

(* = CRITICAL STEP)

TIME STOP _____

TERMINATING CUE:

This JPM is complete when the status of core shutdown margin has been determined, recorded and reported to the CRS. No further actions are required.

CCNPP LICENSED OPERATOR

JOB PERFORMANCE MEASURE NEOP-301-3

TASK: 022060501 Verify Shutdown Margin for existing plant conditions (Mode, Tave, CEA Status) per NEOP 301

Document below any instances of failure to comply with industrial safety practices, radiation safety practices and use of event free tools.

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

TASK: 022060501

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 CRS.
 - comply with industrial safety practices, radiation safety practices and use of event free tools.
2. Initial Conditions:
 - a. Unit-1 has been shutdown to mode 3.
 - b. While completing the CEA insertion, CEA #7, in shutdown Group B, stuck at about 100".
 - c. The failure is mechanical and the CEA is determined untrippable.
 - d. AOP-1B has been implemented.
 - e. T_{AVE} is 532°F
 - e. Core Burnup is 16,000 MWD/MTU.
 - f. RCS boron concentration is 1310 ppm.
 - g. You are performing the duties of the Unit-1 RO.
3. Initiating Cue: AOP-1B requires shutdown margin to be checked. The CRS directs you to verify and document that shutdown margin is adequate with the present plant conditions per the NEOPs. Are there any questions? You may begin.

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[illegible]

*** During Mode 6, this Boron Grab Sample is the minimum value of Refueling Pool or filled portion of RCS.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 022100502 Channel Check Remote Shutdown Instruments

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 022100502 Channel Check Remote Shutdown Instruments

PERFORMER'S NAME: _____

APPLICABILITY:

RO and SRO

EVALUATION LOCATION:

_____ PLANT

_____ SIMULATOR

_____ CONTROL ROOM

EVALUATION METHOD:

_____ ACTUAL PERFORMANCE

_____ DEMONSTRATE PERFORMANCE

ESTIMATED TIME
TO COMPLETE JPM:

10 MINUTES

TIME CRITICAL TASK:

NO

TOOLS AND EQUIPMENT:

None

REFERENCE PROCEDURE:

STP O-63-1

TASK STANDARDS:

This JPM is complete when administrative task 022100502 is completed per STP O-63-1, Remote Shutdown Instruments.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 022100502 Channel Check Remote Shutdown Instruments

DIRECTIONS TO EVALUATOR:

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT
(* = CRITICAL STEP)

STANDARD

TIME START _____

CUE: Provide copy of STP O-63-1 to the candidate.

CUE: The CRS directs the performance of Sections 6.1 and 6.3 only for a PMT for 1C43 power supply replacements. Perform Section 6.1 first.

_____ 6.1. REMOTE SHUTDOWN INSTRUMENTATION

CUE: Do not open 1C43 back panel.

- _____ A. **CHECK** 1C43 power supplies, upper and lower, indicating lights (4) energized. (located in 1C43 back panel) (N/A if performed in step 6.3.A) Element is N/A

CUE: Reactor trip switchgear does not need to be checked.

- _____ B. **RECORD** the parameter readings listed in ATTACHMENT 1, REMOTE SHUTDOWN INSTRUMENTATION from the Remote Shutdown Monitoring Instrumentation panel 1C43, RPS WRNIs at 1C15, and the Reactor Trip Switchgear. Records all data except Reactor Trip Switchgear.

NOTE: A Channel Check is defined by TS Bases 3.3.11.1

- _____ C. **PERFORM** a channel check by comparing each step's parameter recorded values to each other and verify that any channel deviation is within the Acceptance Criteria Determines all values are SAT

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT (* = CRITICAL STEP)	STANDARD
____ D. DETERMINE the operability of each step by circling SAT or UNSAT.	Same as element
____ E. IF any 1C43 WRNI instrument is outside of the Acceptance Criteria when compared to the 1C15 WRNI instrument THEN WRITE an Issue Report. (N/A if all WRNI instruments are within Acceptance Criteria values)	Writes N/A in step

CUE: Proceed to Section 6.3

____ 6.3	<u>POST ACCIDENT MONITORING INSTRUMENTATION AT THE REMOTE SHUTDOWN</u>
____ A. CHECK 1C43 power supplies, upper and lower, indicating lights (4) energized. (Located in 1C43 back panel) (N/A if performed in step 6.1.A)	Determines element is N/A
____ B. RECORD the parameter readings listed in ATTACHMENT 3, <u>POST ACCIDENT MONITORING INSTRUMENTATION AT THE REMOTE SHUTDOWN PANEL AT 1C43.</u>	Records data on Attachment 3

NOTE: A Channel Check is defined by TS Bases 3.3.10.1

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT (* = CRITICAL STEP)	STANDARD
_____ C PERFORM a channel check by comparing each step's parameter recorded values to each other and verify that any channel deviation is within the Acceptance Criteria.	Determines all values are SAT
_____ D. IF any instrument is outside of the Acceptance Criteria, <u>THEN WRITE</u> an Issue Report. (N/A if all instruments are within Acceptance Criteria values.)	Writes N/A in step
_____ E COMPLETES review of STP data and gives it to the CRS for SRO review (Section 6.4)	Same as element

TIME STOP _____

TERMINATING CUE: This task is complete when Attachments 1 and 3 from STP O-63-1 are completed. No further actions are required.
--

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 022100502 CHANNEL CHECK REMOTE S/D INSTRUMENTS

Document below any instances of failure to comply with industrial safety practices, radiation safety practices and use of event free tools

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

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK 022100502

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 CRS.
 - comply with industrial safety practices, radiation safety practices and use of event free tools.
2. Initial Conditions:
 - a. Unit 1 is at 100% power.
 - b. Maintenance has been completed on the power supply replacement at 1C43.
 - c. You are performing the duties of the Extra Licensed Operator.
3. Initiating Cue: The CRS has directed you to perform STP O-63-1 on the Instruments at 1C43 as a Post Maintenance Test. Are there any questions? You may begin.

**CALVERT CLIFFS NUCLEAR POWER PLANT
SURVEILLANCE TEST PROCEDURE
UNIT ONE**

STP O-63-1

**REMOTE SHUTDOWN AND POST ACCIDENT MONITORING INSTR
CHANNEL CHECK**

REVISION 31

SAFETY RELATED

CONTINUOUS USE

Approval Authority: _____

Signature/Date

Effective Date: 6/8/00

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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SURVEILLANCE TEST PROCEDURES ADDITIONAL COVER SHEET INFORMATION

A. Test Performance

Permission to perform test: _____

Shift Manager

Date

TODAY

B. Test completion, results review and approval (Circle appropriate answer)

Accept. Criteria in spec?	YES NO N/A	Adjustments made?	YES NO N/A
As found results in spec?	YES NO N/A	IR submitted?	YES NO N/A
As left results in spec?	YES NO N/A	Malfunctions indicated?	YES NO N/A

REMARKS: _____

Test completed by: _____

Date

Analysis of results: _____

Shift Manager review: _____

Date

Analysis/Comments: _____

Functional Surveillance
Test Coordinator: _____

Date: _____

EQSE (if required): _____

Date: _____

* POSRC Meeting No.: _____

Date: _____

* Plant General Manager: _____

Date: _____

* Required only if completed test on SR and designated NSR structures, systems and components (per Q List) identified a malfunction or were out of specification.

Attach a separate sheet, if necessary, to document additional comments.

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INSTR CHANNEL CHECK

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LIST OF EFFECTIVE PAGES

PAGE NUMBERS

1-22

REVISION

31

PROCEDURE ALTERATIONS

REVISION/CHANGE

NONE

PAGES

NONE

1.0 PURPOSE

- A. This test verifies the operability of instrumentation, by channel check, that:
- Sufficient information available to permit facility shutdown and maintenance of Hot Standby conditions from outside the Control Room.
 - Sufficient information available on selected plant parameters to monitor and assess these variables following an accident.

2.0 APPLICABILITY/SCOPE

- A. Completion of this STP satisfies TS SR 3.3.10.1 and 3.3.11.1 for equipment tested.
- B. This STP does not test the Hydrogen Monitors for TS SR 3.3.10.1.
- C. Test Performance Requirements:
1. The sections of this STP may be performed in any order. Each step shall be initialed or circled immediately after it is completed and prior to performing the next step. Each step shall be initialed by either the licensed operator directing the STP or the operator performing the applicable step.
 2. The 1/2 Decade is determined by taking the lowest meter reading times 3.16 and ensuring all other meter readings are within this value. Example: $7 \times 10^{-3} \% \text{ times } 3.16 \text{ equals } 2.2 \times 10^{-2} \%$.
 3. A CHANNEL CHECK is based on the assumption that indication channels monitoring the the same parameter should read approximately the same value. If the channel is off scale, then verify the channels are off scale in the same direction. Off-scale low current loop channels are verified to be reading at the bottom of the range and **NOT** failed down-scale. (Tech Spec Bases 3.3.10.1 and 3.3.11.1)

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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2.0 APPLICABILITY/SCOPE (Continued)

D. INDICATE the reason(s) for performing this STP:

☐ Scheduled Surveillance.

☐ Operability Verification.

☒ Post Maintenance Verification.

(Enter attachment/parameter to be performed in Pre-surveillance Remarks)

MO/IR numbers: 120000086

Pre-surveillance
remarks:

PERFORM SECTIONS 6.1 AND 6.3 ONLY

ITEM 11 ON ATTACHMENT 1 IS N/A

Determination made by: TPH

(SR0)

3.0 REFERENCES

A. Procedure

1. OI-11, Reactor Vessel Level Monitoring System (RVLMS)
2. EN-4-104, Surveillance Test Program

B. Drawing

1. 61-101, sht 43D

C. Codes and Standards

1. Quality List (Q List)
2. Technical Manual 15-109-82, Heated Junction Thermocouple Electronics
3. Technical Specifications
4. UFSAR, Post-Accident Monitoring Instrumentation


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INSTR CHANNEL CHECK

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4.0 PREREQUISITES

INITIALS

- A. Plant is in EITHER Mode 1, 2, or 3 OR Mode 4, if preparations are being made to enter Mode 3.
- B. Administrative Requirements:
1. **VERIFY** qualifications of test personnel.
 2. **PERFORM** a pretest page check of this STP.
 3. **DETERMINE** pretest briefing requirements: (check one)
 - ☒ Pretest briefing NOT required.
 - ☐ Pretest briefing required, surveillance and watch personnel have been briefed on procedures, precautions, and actions to be taken in the event an unexpected condition occurs.


Shift Manager

5.0 PRECAUTIONS

- A. When an instrumentation channel does not meet the acceptance criteria, declare the channel inoperable and refer to the applicable Technical Specification for the appropriate action.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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6.0 **PERFORMANCE**

INITIALS

6.1 **REMOTE SHUTDOWN INSTRUMENTATION**

- A. **CHECK** 1C43 power supplies, upper and lower, indicating lights (4) energized. (Located in 1C43 back panel) (N/A if performed in step 6.3.A)
- B. **RECORD** the parameter readings listed in ATTACHMENT 1, REMOTE SHUTDOWN INSTRUMENTATION from the Remote Shutdown Monitoring Instrumentation panel 1C43, RPS WRNIs at 1C15, and the Reactor Trip Switchgear.

NOTE

A Channel Check is defined by TS Bases 3.3.11.1.

- C. **PERFORM** a channel check by comparing each step's parameter recorded values to each other and verify that any channel deviation is within the Acceptance Criteria.
- D. **DETERMINE** the operability of each step by circling SAT or UNSAT.
- E. **IF** any 1C43 WRNI instrument is outside of the Acceptance Criteria when compared to the 1C15 WRNI instrument, **THEN WRITE** an Issue Report. (N/A if all WRNI instruments are within Acceptance Criteria values.)

6.2 **POST-ACCIDENT MONITORING INSTRUMENTATION**

- A. **RECORD** the parameter readings listed in ATTACHMENT 2, POST-ACCIDENT INSTRUMENTATION from the Control Room and Heated Junction Thermocouple (HJTC) Panels.

NOTE

A Channel Check is defined by TS Bases 3.3.10.1.

- B. **PERFORM** a channel check by comparing each step's parameter recorded values to each other, unless stated otherwise, and verify that any channel deviation is within the Acceptance Criteria.
- C. **DETERMINE** the operability of each step by circling SAT or UNSAT.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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6.3 POST ACCIDENT MONITORING INSTRUMENTATION AT THE
REMOTE SHUTDOWN PANEL

INITIALS

- A. CHECK 1C43 power supplies, upper and lower, indicating lights (4) energized. (Located in 1C43 back panel) (N/A if performed in step 6.1.A.)
- B. RECORD the parameter readings listed in ATTACHMENT 3, POST ACCIDENT MONITORING INSTRUMENTATION AT THE REMOTE SHUTDOWN PANEL at 1C43.

NOTE

A Channel Check is defined by TS Bases 3.3.10.1.

- C. PERFORM a channel check by comparing each step's parameter recorded values to each other and verify that any channel deviation is within the Acceptance Criteria.
- D. IF any instrument is outside of the Acceptance Criteria, THEN WRITE an Issue Report. (N/A if all instruments are within Acceptance Criteria values.)

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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6.4 ACCEPTANCE CRITERIA

INITIALS

NOTE

Performance of this section constitutes a supervisory review. Actual observation of equipment response by the SRO performing this review is not required. Answering YES to a step signifies that the noted step has been completed and signed off by a qualified operator and that the actual equipment response is acceptable and valid.

- A. Did all the instruments listed in ATTACHMENT 1 meet the Acceptance Criteria?

YES / NO
(circle one)

SRO

- B. Did all the instruments listed in ATTACHMENT 2 meet the Acceptance Criteria?

YES / NO
(circle one)

SRO

- C. This surveillance is considered satisfactory if YES was answered in all steps above.

SAT / UNSAT
(circle one)

SRO

1. **IF** unsat,
THEN notify the SM, declare the affected equipment inoperable and take actions as required by Technical Specifications and administrative actions stated in EN-4-104.
2. **INITIATE** an Issue Report for any equipment deficiencies.

7.0 POST PERFORMANCE ACTIVITIES

PERFORM a post test page verification of this surveillance.

8.0 BASES

[B0283]: Uncertainty Calculation for the Reactor Coolant System Temperature Indication/Recording Instrumentation Loops.

[B0285]: DELETED

[B0431]: TEMP ALT 1-OO-0038, CET 08, 22, and 42 are not installed for Unit 1 Cycle 15.

[B0433]: ES199502311, Uncertainty Calculation for Low Range Pressurizer Pressure Instrumentation Loops. (DCALC-CA00753)

[B0434]: ES199701033, Total Loop Uncertainty (TLU) for 12 CST.

[B0435]: ES199900558, Acceptance criteria for Channel Check of Containment Area Radiation High Range Monitors (1 & 2 RI 5217 A & B)

[B0436]: IR3-001-059, Identifies deficiencies in the implementation of CET Operability Requirements. This includes the requirements of TS Amendments 148 (U-1) and 129 (U-2).

[B0438]: NRM memo NRM98183, P. S. Furio to D. L. Montana, PDMAU, dated 7/31/98, "Post-Accident Monitoring Instrumentation Surveillance Requirements".

[B0439]: SE memo, J. E. Kunzmann to D. L. Montana, PDMAU, dated 8/6/98, "RVLMS Testing per STP-O-63".

9.0 RECORDS

A. Records generated by this procedure shall be captured and controlled. Prior to transferring records for retention, legibility and completeness of the record shall be verified by the transmitting organization.

B. Maintain records as defined in EN-4-104, Surveillance Test Program.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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ATTACHMENT 1

Page 1 of 2

REMOTE SHUTDOWN INSTRUMENTATION

PARAMETER	REMOTE SHUTDOWN INSTR (1C43)	ACCEPTANCE CRITERIA	CIRCLE ONE
1. Reactor Power_____ (Control Room narrow range) Mode_____			
2. 11 S/G LVL {1}	1-LI-1114B_____ in. 1-LI-1114A_____ in.	MAX DEV 25 in.	SAT / UNSAT
3. 11 S/G PRESS	1-PI-1013BB_____ PSIA 1-PI-1013AA_____ PSIA	MAX DEV 40 PSIA	SAT / UNSAT
4. RCS Hot Leg TEMP {2}	1-TI-112HB_____ °F 1-TI-112HA_____ °F 1-TI-122HB_____ °F 1-TI-122HA_____ °F	MAX DEV 15° F	N/A
5. RCS Cold Leg TEMP	1-TI-112CB_____ °F 1-TI-112CA_____ °F 1-TI-122CB_____ °F 1-TI-122CA_____ °F	MAX DEV 15° F	SAT / UNSAT
6. PRZR LVL	1-LI-110Y_____ in. 1-LI-110X_____ in.	MAX DEV 10 in.	SAT / UNSAT
7. PRZR PRESS	1-PI-105B_____ PSIA 1-PI-105AA_____ PSIA	MAX DEV 60 PSIA	SAT / UNSAT

{1} S/G LVL READINGS SHOULD BE TAKEN AT < 1% OR > 90% REACTOR POWER.

{2} NOT REQUIRED BY TECH SPECS. WHEN OUTSIDE OF ACCEPTANCE CRITERIA, WRITE AN ISSUE REPORT. THIS DOES NOT CONSTITUTE A FAILURE OF THE STP.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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ATTACHMENT 1

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REMOTE SHUTDOWN INSTRUMENTATION

PARAMETER	REMOTE SHUTDOWN INSTR (1C43)	ACCEPTANCE CRITERIA	CIRCLE ONE
8. RX WR POWER {3}	CH B _____ CH D _____	MAX DEV 1/2 Decade >10 ⁻⁴ % OR 2 Decades <10 ⁻⁴ %	SAT / UNSAT
(Use WRNI CH SEL 1-HS-015B to shift between Channels B and D) (Record values from either 1-NI-015 or 1-NI-016 depending on PWR LVL)			
ENSURE all WRNI indications are on the same scale (CPS or %)			
The data below is taken from the Control Room WRNI indication at 1C15 and are to be compared with the 1C43 WRNI indication.			
WR Log PWR (1C15) {2}{3}	CH B _____ CH D _____	MAX DEV with 1C43 WRNIs 1/2 Decade >10 ⁻⁴ % OR 2 Decades <10 ⁻⁴ %	N/A
9. 12 S/G LVL {1}	1-LI-1124B _____ in. 1-LI-1124A _____ in.	MAX DEV 25 in.	SAT / UNSAT
10. 12 S/G PRESS	1-PI-1023BB _____ PSIA 1-PI-1023AA _____ PSIA	MAX DEV 40 PSIA	SAT / UNSAT
11. Reactor TCB Position Indication (Cable Spreading RM 306)	U-1 TCB-1 <u>N/A</u> U-1 TCB-2 _____ U-1 TCB-3 _____ U-1 TCB-4 _____ U-1 TCB-5 _____ U-1 TCB-6 _____ U-1 TCB-7 _____ U-1 TCB-8 _____ U-1 TCB-9 _____	Indicates OPEN or CLOSED	SAT / UNSAT

- {1} S/G LVL READINGS SHOULD BE TAKEN AT < 1% OR > 90% REACTOR POWER.
- {2} NOT REQUIRED BY TECH SPECS. WHEN OUTSIDE OF ACCEPTANCE CRITERIA, WRITE AN ISSUE REPORT. THIS DOES NOT CONSTITUTE A FAILURE OF THE STP.
- {3} THE 1/2 DECADE IS DETERMINED BY TAKING THE LOWEST METER READING TIMES 3.16 AND ENSURING ALL OTHER METER READINGS ARE WITHIN THIS VALUE.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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POST-ACCIDENT INSTRUMENTATION

INITIALS

PARAMETER	CONTROL ROOM INSTRUMENT	ACCEPTANCE CRITERIA	CIRCLE ONE
1. Reactor Power_____ (Control Room narrow range) Mode_____			
2. 11 S/G PRESS (1C03)	1-PI-1013A_____ PSIA 1-PI-1013B_____ PSIA 1-PI-1013C_____ PSIA 1-PI-1013D_____ PSIA	MAX DEV 40 PSIA	SAT / UNSAT
3. 12 S/G PRESS (1C03)	1-PI-1023A_____ PSIA 1-PI-1023B_____ PSIA 1-PI-1023C_____ PSIA 1-PI-1023D_____ PSIA	MAX DEV 40 PSIA	SAT / UNSAT
4. 11 S/G LVL (1) (1C04)	1-LR-1114D_____ in. 1-LI-1114C_____ in.	MAX DEV 12 in.	SAT / UNSAT
5. 12 S/G LVL (1) (1C04)	1-LR-1124D_____ in. 1-LI-1124C_____ in.	MAX DEV 12 in.	SAT / UNSAT
6. PZR LOW RANGE PRESS (5) (1C06)	1-PI-103 _____ PSI 1-PI-103-1 _____ PSI	MAX DEV ±13 PSI [B0433]	SAT / UNSAT
7. CONTAINMENT RADIATION (2) (2C24B)	1-RI-5317A_____ R/HR 1-RI-5317B_____ R/HR	READING ≤ 2 X 10 ⁰ AND THE OPERATE LAMP IS LIT [B0435]	SAT / UNSAT

(1) S/G LVL READINGS SHOULD BE TAKEN AT < 1% OR > 90% REACTOR POWER.

(2) CONTAINMENT RADIATION MONITORS INDICATE SEPARATE AND DIFFERENT RADIATION FIELDS. A COMPARISON CHECK OF CHANNELS 1RI5317A & B SHOULD NOT BE PERFORMED. [B0435]

(5) PRESSURIZER LOW RANGE PRESSURE INDICATORS THAT ARE OUT OF RANGE HIGH, REQUIRE CHANNEL CHECKING THE INDICATORS IN ACCORDANCE WITH TS SR BASES 3.3.10.1.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
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POST-ACCIDENT INSTRUMENTATION

INITIALS

PARAMETER	CONTROL ROOM INSTRUMENT	ACCEPTANCE CRITERIA	CIRCLE ONE
8. WR Log PWR (1C05) (3)	1-JI-001 _____ 1-JI-002 _____ 1-JI-003 _____ 1-JI-004 _____	MAX DEV 1/2 Decade >10 ⁻⁴ % OR 2 Decades <10 ⁻⁴ %	SAT / UNSAT
ENSURE all WRNI indications are on the same scale (CPS or %)			
9. Subcooled Margin Monitor (1C05)	1-AI-11 _____ °F 1-AI-12 _____ °F (Ensure 1-HS-6411 and 1-HS-6412 selected to TEMP prior to recording values)	MAX DEV 10°F	SAT / UNSAT
10. RCS Hot Leg TEMP (1C06)	1-TI-112H _____ °F 1-TI-122H _____ °F	MAX DEV 4°F [B0283]	SAT / UNSAT
11. RCS Hot Leg TEMP (1C06)	1-TR-112 _____ °F 1-TR-122 _____ °F	MAX DEV 10°F [B0283]	SAT / UNSAT
12. RCS Cold Leg TEMP (1C06)	1-TI-112C _____ °F 1-TI-122C _____ °F	MAX DEV 4°F [B0283]	SAT / UNSAT
13. RCS Cold Leg TEMP (1C06)	1-TR-112 _____ °F 1-TR-122 _____ °F	MAX DEV 10°F [B0283]	SAT / UNSAT
14. PRZR PRESS (1C06)	1-PI-105A _____ PSIA 1-PR-105B _____ PSIA	MAX DEV 60 PSIA	SAT / UNSAT
15. PRZR LVL (1C06)	1-LI-110X-1 _____ in. 1-LI-110Y-1 _____ in.	MAX DEV 10 in.	SAT / UNSAT
16. CNTMT PRESS (1C09) (4)	1-PI-5310 _____ PSIG 1-PI-5307 _____ PSIG 1-PI-5308 _____ PSIG	MAX DEV 2 PSIG	SAT / UNSAT
17. WR CNTMT LVL (1C10)	1-LI-4147 _____ in. 1-LI-4146 _____ in.	MAX DEV 4 in.	SAT / UNSAT
18. 12 CST LVL (1C04)	1-LIA-5610 _____ FT. 1-LI-5611 _____ FT.	MAX DEV 1.5 FT [B0434]	SAT / UNSAT

- (3) THE 1/2 DECADE IS DETERMINED BY TAKING THE LOWEST METER READING TIMES 3.16 AND ENSURING ALL OTHER METER READINGS ARE WITHIN THIS VALUE.
(4) BOTH 1-PI-5307 AND 1-PI-5308 REQUIRED TO MEET 1 CHANNEL REQUIREMENT.

ATTACHMENT 2

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POST-ACCIDENT INSTRUMENTATION

INITIALS

PARAMETER	CONTROL ROOM INSTRUMENT	ACCEPTANCE CRITERIA	CIRCLE ONE
19. Core Exit Thermocouples	(1C05)	[B0436]	

QUAD No. ONE

1-TI-112H _____ °F
1-HS-132A (ZB)
T06 _____ (1)
T23 _____ (1)
T24 _____ (1)
T39 _____ (3)
T40 _____ (3)
T41 _____ (3)

1-HS-132C (ZA)
T07 _____ (1)
T25 _____ (2)
T26 _____ (1)
T27 _____ (1)
T42 N/A* (3)
T43 _____ (2)

QUAD No. TWO

1-TI-122H _____ °F
1-HS-132B (ZB)
T08 N/A* (1) INTERIOR CETs
MAX TEMP DEV from
T09 _____ (1) 1-TI-112H AND
T28 _____ (1) 1-TI-122H is
T29 _____ (1) plus 35°F or
T30 _____ (2) minus 45°F
T44 _____ (3)

(2) PERIPHERAL CETs
MAX TEMP DEV from
1-TI-112H AND
1-TI-122H is
plus 35° or
minus 45°F

(3) SHROUD PERIPHERAL CETs
MAX TEMP DEV from
1-TI-112H AND
1-TI-122H is
plus 20° or
minus 55°F

*T08, 22, AND 42 ARE NOT INSTALLED PER TEMP. ALT. TA 1-00-0038 FOR UNIT 1 CYCLE 15.
[B0431]

VERIFY at least ONE INTERIOR(1) AND ONE PERIPHERAL(2) OR (3)
CET PER handswitch (ZA/ZB) meet the Acceptance
Criteria to satisfy this step.

SAT / UNSAT

For any CET deviating greater than acceptance criteria:

- INITIATE an IR
- REMOVE the CET from scan
- NOTIFY NFMU Reactor Engineer

ATTACHMENT 2

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POST-ACCIDENT INSTRUMENTATION

INITIALS

PARAMETER	CONTROL ROOM INSTRUMENT	ACCEPTANCE CRITERIA	CIRCLE ONE
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19. Core Exit Thermocouples (1C05) (continued) [B0436]

QUAD No. THREE

1-TI-112H _____ °F
1-HS-131B (ZA)
T03 _____ (1)
T04 _____ (1)
T18 _____ (1)
T19 _____ (1)
T20 _____ (2)
T37 _____ (3)

1-HS-131D (ZB)
T05 _____ (1)
T21 _____ (3)
T22 N/A* (2)
T38 _____ (3)

QUAD No. FOUR

1-TI-122H _____ °F
1-HS-131A (ZA)
T10 _____ (1)
T13 _____ (1)
T33 _____ (3)
T34 _____ (3)
T35 _____ (3)

1-HS-131C (ZB)
T02 _____ (1)
T14 _____ (1)
T15 _____ (1)
T16 _____ (1)
T17 _____ (1)
T36 _____ (2)

(1) INTERIOR CETs
MAX DEV from
1-TI-112H AND
1-TI-122H is
plus 35°F or
minus 45°F

(2) PERIPHERAL CETs
MAX DEV from
1-TI-112H AND
1-TI-122H is
plus 35°F or
minus 45°F

(3) SHROUD PERIPHERAL CETs
MAX DEV from
1-TI-112H AND
1-TI-122H is
plus 20°F or
minus 55°F

*T08, 22, AND 42 ARE NOT INSTALLED PER TEMP. ALT. TA 1-00-0038 FOR UNIT 1 CYCLE 15
[B0431]

VERIFY at least ONE INTERIOR(1) AND ONE PERIPHERAL(2) OR (3)
CET PER handswitch (ZA/ZB) meet the Acceptance
Criteria to satisfy this step.

SAT / UNSAT

For any CET deviating greater than acceptance criteria:

- INITIATE an IR
- REMOVE the CET from scan
- NOTIFY NFMU Reactor Engineer

ATTACHMENT 2

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POST-ACCIDENT INSTRUMENTATION

INITIALS

20. Rx Vessel LVL (CAB 1C144A and 1C144B) [B0439]

NOTE

Jumpered unheated sensors are still considered operable.

- a. **REVIEW** the RVLMS Operability Log, OI-1I Appendix 3, for any HJTC heated sensors that are jumpered out and, **WRITE INOP** for that HJTC ΔT in step 20.c. Acceptance Criteria.
- b. **RECORD** the Delta-temperature (ΔT) of each unjumpered Heated Junction Thermocouple (HJTC) sensors in each channel as follows:

NOTE

To select Test 1, step 3 must be done immediately after step 2.

- (1) **SET** the LEVEL/THOT pushbutton to LEVEL and wait five seconds.
- (2) **DEPRESS** the LEVEL/THOT pushbutton five times in less than two seconds. (The right most decimal point will be blinking)
- (3) **WHEN** the desired test number (shown in 20.c.) is displayed, **DEPRESS** the LEVEL/THOT pushbutton and the temperature will be displayed. (Record these temperatures in step 20.c. Acceptance Criteria)
- (4) To read additional temperatures, **DEPRESS** the LEVEL/THOT pushbutton and repeat Step 3.
- (5) **WHEN** all temperatures have been read, **DEPRESS** SYSTEM RESET pushbutton to exit the test mode.

ATTACHMENT 2

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POST-ACCIDENT INSTRUMENTATION

INITIALS

c. ACCEPTANCE CRITERIA:

NOTE

A HJTC is considered operable if its ΔT is in the range of 25° to 200° F and its heated sensor is not jumpered out.

(1) CH A upper sensors (1C144A 27' SWGR)

$\Delta T1$ _____ °F (Test 1)

$\Delta T2$ _____ °F (Test 4)

$\Delta T3$ _____ °F (Test 7)

CIRCLE ONE

- (a) One or more of the upper three sensors operable.

SAT / UNSAT

(2) CH A lower sensors (1C144A 27' SWGR)

$\Delta T4$ _____ °F (Test 10)

$\Delta T5$ _____ °F (Test 13)

$\Delta T6$ _____ °F (Test 16)

$\Delta T7$ _____ °F (Test 19)

$\Delta T8$ _____ °F (Test 22)

- (a) Three or more of the lower five sensors operable.

SAT / UNSAT

(3) CH B upper sensors (1C144B 45' SWGR)

$\Delta T1$ _____ °F (Test 1)

$\Delta T2$ _____ °F (Test 4)

$\Delta T3$ _____ °F (Test 7)

- (a) One or more of the upper three sensors operable.

SAT / UNSAT

(4) CH B lower sensors (1C144B 45' SWGR)

$\Delta T4$ _____ °F (Test 10)

$\Delta T5$ _____ °F (Test 13)

$\Delta T6$ _____ °F (Test 16)

$\Delta T7$ _____ °F (Test 19)

$\Delta T8$ _____ °F (Test 22)

- (a) Three or more of the lower five sensors operable.

SAT / UNSAT

ATTACHMENT 2

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POST-ACCIDENT INSTRUMENTATION

INITIALS

(5)

CIRCLE ONE

- (a) 1C06 "RVLMS TROUBLE CHANNEL
A 1C144A" and "RVLMS TROUBLE
CHANNEL B 1C144B" annunciator
clear,

OR

- (b) RVLMS PNL error codes E25
through E28 and E31 NOT
displayed AND: Any other error
codes displayed, evaluated NOT
to INOP the RVLMS channel. SAT / UNSAT

ATTACHMENT 2

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POST-ACCIDENT INSTRUMENTATION

INITIALS

21. Containment Isolation Valve Position

NOTE

For a containment isolation valve position indication to be operable, isolation valve status must be assured for each valve in a containment penetration flow path. ZL switches must function to provide accurate status to the Control Room of each isolation valve.

VERIFY each channel of control room containment isolation valve position indication is operable. {6} {7}

	<u>CIRCLE ONE</u>
1-CVC-515-CV	SAT / UNSAT
1-CVC-516-CV	SAT / UNSAT
1-CVC-505-CV	SAT / UNSAT
1-CVC-506-CV	SAT / UNSAT
1-WGS-2180-CV	SAT / UNSAT
1-WGS-2181-CV	SAT / UNSAT
1-CRM-5291-CV	SAT / UNSAT
1-CRM-5292-CV	SAT / UNSAT
1-HP-6900-MOV	SAT / UNSAT
1-HP-6901-MOV	SAT / UNSAT
1-IA-2080-MOV	SAT / UNSAT
1-CC-3832-CV	SAT / UNSAT
1-CC-3833-CV	SAT / UNSAT
1-RCW-4260-CV	SAT / UNSAT

- {6} VERIFICATION OF VALVE POSITION INDICATION IS NOT REQUIRED FOR ISOLATION VALVES WHOSE ASSOCIATED PENETRATION IS ISOLATED BY AT LEAST ONE CLOSED AND DEACTIVATED AUTOMATIC VALVE, CLOSED MANUAL VALVE, CHECK VALVE WITH FLOW THROUGH THE VALVE SECURED, BLIND FLANGE, OR EQUIVALENT.
- {7} ONLY ONE POSITION INDICATION CHANNEL IS REQUIRED FOR PENETRATION FLOW PATHS WITH ONLY ONE INSTALLED CONTROL ROOM INDICATION CHANNEL.

REMOTE SHUTDOWN AND POST ACCIDENT MONITORING
INSTR CHANNEL CHECK

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ATTACHMENT 3

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POST ACCIDENT MONITORING INSTRUMENTATION AT THE REMOTE SHUTDOWN PANEL

PARAMETER	PAM INSTRUMENTS AT 1C43	ACCEPTANCE CRITERIA	CIRCLE ONE
1. 12 CST LVL (1) (1C43) [B0438]	1-LI-5610A _____ ft. 1-LI-5611A _____ ft.	MAX DEV 1.5 ft. [B0434]	N/A

- (1) NOT REQUIRED BY TECH SPECS. WHEN OUTSIDE OF ACCEPTANCE CRITERIA, WRITE AN ISSUE REPORT. THIS DOES NOT CONSTITUTE A FAILURE OF THE STP.

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control**

Knowledge of radiation exposure limits

K/A 2.3.4 [2.5/3.1]

Question a:

What is the CCNPP Administrative Dose MAXIMUM limit for total dose equivalent (TEDE) that an Operator can receive as the TEDE-ALARA goal and the MAXIMUM CCNPP Administrative limit from all occupational sources?

☐ Satisfactory

☐ Unsatisfactory

Candidate _____

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control
Knowledge of radiation exposure limits**

K/A 2.3.4 [2.5/3.1]

Question a:

What is the CCNPP Administrative Dose MAXIMUM limit for total dose equivalent (TEDE) that an Operator can receive as the TEDE-ALARA goal and the MAXIMUM CCNPP Administrative limit from all occupational sources?

Answer:

1.5 REM (15 mSv) is the ALARA goal, whereas 4.0 REM (40 mSv) is the maximum administrative limit from all occupational sources

Reference Use Allowed? YES

Reference 1 RP-1-100 Table 1, page 22

☐ Satisfactory

☐ Unsatisfactory

Candidate _____

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control**

Knowledge of 10CFR 20 and related facility radiation control requirements

K/A 2.3.1 [2.6/3.0]

Question b:

What radiological restrictions, if any exist for workers in the RCA that have to climb to perform work?

Comments:

☐ Satisfactory

☐ Unsatisfactory

Candidate _____

Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control

Knowledge of 10CFR 20 and related facility radiation control requirements

K/A 2.3.1 [2.6/3.0]

Question b:

What radiological restrictions, if any, exist for workers in the RCA that have to climb to perform work?

Answer:

Workers are NOT to work in the overhead or any other area unless radiological surveys have been performed OR checked as specified in the SWP.

(Radiological signs and postings apply to general or specific areas up to 8 feet off the floor)

Reference Use Allowed? YES

Reference 1: RP-1-100 Section 5.2 .B Note

Comments:

☐ Satisfactory

☐ Unsatisfactory

Candidate _____

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 010610402 Use of Dedicated Telephone per ERPIP 105

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR**ADMINISTRATIVE TOPIC****JOB PERFORMANCE MEASURE**

TASK: 010610402 Use of Dedicated Telephone per ERPIP 105

PERFORMER'S NAME: _____

APPLICABILITY:

PO and RO

PREREQUISITES:

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

EVALUATION LOCATION:

_____ PLANT X SIMULATOR _____ CONTROL ROOM

EVALUATION METHOD:

_____ ACTUAL PERFORMANCE _____ DEMONSTRATE PERFORMANCE

ESTIMATED TIME
TO COMPLETE JPM:

ACTUAL TIME
TO COMPLETE JPM:

TIME CRITICAL TASK:

10 MINUTES

_____ MINUTES

YES (15 Minutes)

TASK LEVEL:

TRAIN

TOOLS AND EQUIPMENT:

None

REFERENCE PROCEDURE(S):

ERPIP 105

TASK STANDARDS:

This JPM is complete when administrative task 010610402 is completed per ERPIP 105 for Initial Notification within 15 minutes of receiving the Initial Notification Form

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 010610402 Use of Dedicated Telephone per ERPIP 105

DIRECTIONS TO EVALUATOR:

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT
(* = CRITICAL STEP)

STANDARD

TIME START _____

CUE:

- | | | |
|-------|--|-----------------|
| _____ | Locate the ERPIP 105 procedure | Same as Element |
| _____ | Go to Attachment 1, OFFSITE AGENCY NOTIFICATIONS | Same as element |
| _____ | 1. LIFT receiver and DEPRESS
"OFFSITE CONFERENCE" | Same as element |

CUE: The simulator booth operator will answer the phone supplying the agency name and a person's name when requested.

- | | | |
|-------|---|-----------------------------|
| _____ | 2. As each agency answers, SAY , "This is Calvert Cliffs. Standby for an emergency message." | Same as element |
| _____ | 3. REQUEST agency name AND name of person. | Same as element |
| _____ | 4. RECORD name and time on form | Same as element |
| _____ | 5. IF no agencies answer,
THEN GO TO step B.7 of this attachment. Separate calls must be made. | Determines this step is N/A |
| _____ | 6. After all agencies answer or about 2 minutes, SAY :

a. "Please get an Initial Notification form".

b. "I will wait for you to get the form." | Same as element |

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT (* = CRITICAL STEP)	STANDARD
<p>___ 7. After all agencies get the form or about 1 minute, SAY:</p> <p>a. I will give all information once then repeat it a second time</p> <p>b. If information is missed, please stay on the line and I will repeat what is missed.</p>	Same as element
<p>___ 8. GIVE all information from form. REPEAT all information once.</p>	Same as element
<p>___ 9. ASK each agency if full message was received. PROVIDE any missed information to respective agency. IF an agency does not answer this query, THEN PRESUME that all information is missed. GO TO next step of this attachment AND MAKE a separate agency call.</p> <p>IF all agencies answer this query. THEN GO TO step 8 of this attachment</p>	Same as element
<p>___ 10. IF separate calls must be made, THEN DEPRESS button for respective agency.</p>	Determines this step is N/A
<p>___ 11. MARK on form the method of contact for each agency</p>	Marks on form "Dedicated"
<div style="border: 1px solid black; padding: 5px;">CUE: The call to the NRC is not required.</div>	
<p>___ 12. "At the NRC Emergency Notification System"</p>	Determines step is N/A

CCNPP LICENSED OPERATOR**ADMINISTRATIVE TOPIC****JOB PERFORMANCE MEASURE**

ELEMENT (* = CRITICAL STEP)	STANDARD
____ 13. SIGN form TIME STOP _____	Signs form

TERMINATING CUE:	This task is complete all Offsite agencies have been notified of the event. No further actions are required.
-------------------------	--

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 010610402 Use of Dedicated Telephone per ERPIP 105

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

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK 010610402

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 CRS.
 - comply with industrial safety practices, radiation safety practices and use of event free tools.
2. Initial Conditions:
 - a. The ERPIP has been implemented.
 - b. ERPIP 3.0 Attachment 3 Initial Notification Form has been completed by the Shift Manager
3. Initiating Cue: The Shift Manager has directed you to transmit the Initial Notification information to the Offsite agencies according to ERPIP 105, CONTROL ROOM COMMUNICATOR, OFFSITE AGENCY NOTIFICATIONS. Are there any questions? You may begin.

ATTACHMENT 3
INITIAL NOTIFICATION FORM

Page 1 of 2

USE this form for initial notification and emergency class upgrading and downgrading only.

FORM instructions are on back.

1. This <input checked="" type="radio"/> is not an exercise. (circle one)	8. Radioactivity: <input checked="" type="checkbox"/> Has Not Been Released <input type="checkbox"/> Is Being Released: <input type="checkbox"/> From The Plant <input type="checkbox"/> In The Plant <input type="checkbox"/> Has Been Released: <input type="checkbox"/> From The Plant <input type="checkbox"/> In The Plant
2. Name of Caller:	
3. Title/Organization: BGE	
4. Facility: CALVERT CLIFFS	
5. Emergency Class: <input type="checkbox"/> None <input checked="" type="checkbox"/> Unusual Event <input type="checkbox"/> Alert <input type="checkbox"/> Site Emergency <input type="checkbox"/> General Emergency	9. Type of Release: <input checked="" type="checkbox"/> None <input type="checkbox"/> Airborne <input type="checkbox"/> Waterborne <input type="checkbox"/> Surface Spill
6. Time Declared: <u>Now</u> Date: <u>TODAY</u>	10. Population Affected: <input checked="" type="checkbox"/> None <input type="checkbox"/> Yes
7. Nature of Incident: <input type="checkbox"/> None Enter EAL Code (<u>Q A 1</u>) Circle EAL Number <u>N/A</u> 1 2 3 4 5 6 Enter two digit event code: <u>6 5</u>	11. Protective Action Recommended (choose one only): <input checked="" type="checkbox"/> None <input type="checkbox"/> Shelter entire 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1 & 3 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1, 2, & 3 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1 & 2 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ
	12. This <input checked="" type="radio"/> is not an exercise. (circle one)

Site Emergency Coordinator signature: RE

NOTE

Maryland State Police receives calls for Maryland Emergency Management Agency until their offices are manned. Maryland Department of the Environment Security receives calls for Maryland Department of the Environment until their offices are manned.

	LOCATION	TIME	RECEIVED BY	DEDICATED PHONE	RADIO	OUTSIDE LINE
1.	CALVERT					
2.	ST. MARY'S					(410-535-3491)
3.	DORCHESTER					(301-475-8016)
4.	MEMA (or MSP)					(410-228-2222)
5.	MDE					(410-517-3600)
						(410-631-3937)
** NOTIFY the NRC immediately after the above agencies have been notified. **						
6.	NRC					(301-816-5100)

RECORD time all calls to above agencies were completed:

Communicator signature:

FORWARD TO EMERGENCY PLANNING UNIT UPON TERMINATION OF EMERGENCY CONDITION

ES-301		Administrative Topics Outline	Form ES-301-1
Facility: Calvert Cliffs 1 and 2		Date of Examination:	9/25/00
Examination Level (circle one): RO / SRO		Operating Test Number:	1
Administrative Topic/Subject Description		Describe method of evaluation:	
		3. ONE Administrative JPM, OR 4. TWO Administrative Questions	
A.1	Mode Change	JPM K/A 2.1.33 // 4.0 Ability to recognize entry level conditions for Technical Specifications	
	Risk assessment	JPM K/A 2.1.20 // 4.2 Ability to execute procedure steps	
A.2	Post Maintenance Testing	JPM K/A 2.2.21 // 3.5 Demonstrate knowledge of Post Maintenance operability requirements	
A.3	Radiation Control	K/A 2.3.4 // 3.1 Knowledge of radiation exposure limits and control	
		K/A 2.3.1 // 3.0 Knowledge of 10CFR20 and related facility radiation control requirements	
A.4	Event Classification	JPM K/A 2.2.44 // 4.0 Demonstrate knowledge of emergency plan protective action recommendations	

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032120201 Determine and Apply Tech Spec Requirements

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR**ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE**

TASK: 032120201 Determine and Apply Tech Spec Requirements

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:

10 MINUTES

ACTUAL TIME
TO COMPLETE JPM:

_____ MINUTES

TIME CRITICAL TASK:

NO

TASK LEVEL:

TRAIN

TOOLS AND EQUIPMENT:

CRO Log sheet

REFERENCE PROCEDURE(S):

Tech Spec

TASK STANDARDS:

This JPM is complete when administrative task 032120201 is completed per Tech Spec 3.5.1.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032120201 Determine and Apply Tech Spec Requirements

DIRECTIONS TO EVALUATOR:

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT
(* = CRITICAL STEP)

STANDARD

TIME START _____

CUE: Provide a copy of the CRO logs for the CRS review.

- | | | |
|----------|---|---|
| _____ 1. | Review the CRO log sheet for SIT data, page 5 | Determines the readings for 12B SIT are out of spec |
|----------|---|---|

CUE: The readings for 12B SIT on the log are verified as accurate on 1C08.

- | | | |
|----------|--|--|
| _____ 2. | Verify the accuracy of the recorded readings on 1C08 | Determines the readings for 12B SIT are accurate |
|----------|--|--|

NOTE: The candidate may direct the CRO to restore 12B SIT level and pressure per OI-3 while the Tech Specs are reviewed by the candidate.

CUE: Acknowledge the direction to restore 12B SIT level and pressure per OI-3

- | | | |
|----------|---|-----------------|
| _____ 3. | Direct 12B SIT level and pressure to be restored per OI-3 while Tech Spec are reviewed. | Same as element |
|----------|---|-----------------|

CUE: Acknowledge the direction to restore 12B SIT level and pressure within 1 hour.

- | | | |
|----------|---|---|
| _____ 4. | Review Tech Spec for 3.5.1, ECCS, Safety Injection Tanks | Determines that the LCO 3.5.1 Action B applies. |
| | LCO 3.5.1 Action B applies, Have 1 hour to restore 12B SIT level and pressure | Same as element |
| | Notify CRO that 12B SIT level and pressure must be restored within 1 hour | Same as element |

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT (* = CRITICAL STEP)		STANDARD
_____ 5.	Review LCO 3.5.1 Action C LCO 3.5.1 Action C will apply in 1 hour if the 12B SIT level and pressure are not restored <ul style="list-style-type: none">• Be in Mode 3 in 6 hours• AND be in Mode 4 in the next 12 hours	Determines that the LCO Action C will require a Mode change Same as element

TIME STOP _____

TERMINATING CUE:	This task is complete when Tech Spec LCO 3.5.1 Action B and C are evaluated. No further actions are required.
------------------	---

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032120201 DETERMINE AND APPLY TS REQUIREMENTS

Document below any instances of failure to comply with industrial safety practices, radiation safety practices and use of event free tools

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

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK 032120201

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 CRS.
 - comply with industrial safety practices, radiation safety practices and use of event free tools.
2. Initial Conditions:
 - a. Unit 1 is at 100% power.
 - b. The CRO has just informed you that SIT readings are out of spec.
 - c. You are performing the duties of the CRS.
3. Initiating Cue: The CRO has informed you that the 12B SIT readings out of spec on his CRO logs. You are to evaluate the log readings for the SITs and determine the appropriate immediate corrective actions and subsequent actions if the corrective actions are unsuccessful. Are there any questions? You may begin.

CALVERT CLIFFS NUCLEAR POWER PLANT UNIT ONE CONTROL ROOM OPERATOR LOGSHEET

PAGE 5 OF 16

DATE: TODAY @ 0600 TO TOMORROW @ 0600

U-1 SAFETY INJECTION TANK IN-LEAKAGE LOG

1. RECORD SIT LEVELS IN 0.25 INCH INCREMENTS
2. RECORD LEVELS AND COMPUTE POSITIVE CUMULATIVE LEVEL CHANGES FOR EACH TANK DURING 0800, 1400, 2000, 0200 ROUNDS AND PRIOR TO EACH SIT FILL.
3. POSITIVE LEVEL CHANGES OCCURRING AT TIMES OTHER THAN RECIRC/FILL OF ANY TANK SHALL BE ADDED TO THE CUMULATIVE TOTAL.
4. IF AN UNINTENTIONAL LEVEL CHANGE OF <0.4 INCHES OCCURS DURING RECIRC/FILL OF ANY TANK, ADD THAT VALUE TO CUMULATIVE TOTAL. IF THE UNINTENTIONAL LEVEL CHANGE IS >0.4 INCHES, ADD ONLY 0.4 INCHES TO THE CUMULATIVE TOTAL.
5. IF A TANK IS FILLED INTENTIONALLY, THAT LEVEL INCREASE SHOULD NOT BE ADDED TO THE CUMULATIVE TOTAL.
6. DISREGARD ANY NEGATIVE LEVEL CHANGES.
7. SAMPLE AND VERIFY BORON CONCENTRATION OF THE TANK WITHIN 24 HOURS AFTER THE CUMULATIVE TOTAL REACHES 10 INCHES.
8. ZERO THE CUMULATIVE TOTAL AFTER SAMPLING.
9. IF NARROW RANGE LEVEL INDICATOR IS OOS, USE WIDE RANGE INDICATION. IF USING WIDE RANGE INDICATION LEVEL MUST BE BETWEEN 190 AND 195 INCHES DUE TO LOOP UNCERTAINTIES.
10. SIT LOGS ARE COVERED BY CONTROL ROOM LOG BASIS U1CR-128 THRU U1CR-139.
11. SIT PRESSURE IS ADMINISTRATIVELY CONTROLLED BETWEEN 200 AND 225 PSIG.
12. SIT LEVEL SHALL BE > OR = TO 187 AND < OR = TO 199 INCHES. S.R. 3.5.1.2
13. SIT PRESSURE SHALL BE > OR = TO 200 AND < OR = 250 PSIG. S.R. 3.5.1.3

11A SIT

TIME	PRESSURE PI-311A	LEVEL LI-311A	LEVEL CHANGE	CUMULATIVE TOTAL
CARRYOVER	218	196		0
0730	217	196	-	0
1400	217	196	-	0

12A SIT

TIME	PRESSURE PI-331A	LEVEL LI-331A	LEVEL CHANGE	CUMULATIVE TOTAL
CARRYOVER	214.5	195.75		0
0730	213.5	195.5	-	0
1400	213	195.5	-	0

11B SIT

TIME	PRESSURE PI-321A	LEVEL LI-321A	LEVEL CHANGE	CUMULATIVE TOTAL
CARRYOVER	215	196.25		1.25
0730	214.5	196.25	-	1.25
1400	214.5	196.25	-	1.25

12B SIT

TIME	PRESSURE PI-341A	LEVEL LI-341A	LEVEL CHANGE	CUMULATIVE TOTAL
CARRYOVER	215	196.25		0
0730	214.5	195.0	-	0
1400	(198)	(186)	① -	0

① 12B SIT LEVEL AND PRESSURE OOS DUE TO VALVE LEAKAGE

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032040080 Complete/Review Risk Assessment worksheets

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR**ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE**

TASK: 032040080 Complete/Review Risk Assessment worksheets

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:

15 MINUTES

_____ MINUTES

NO

TASK LEVEL:

TRAIN

TOOLS AND EQUIPMENT:

None

REFERENCE PROCEDURE(S):

NO 1-117

TASK STANDARDS:

This JPM is complete when administrative task 032040080 is completed per NO 1-117 attachment 5

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032040080 Complete/Review Risk Assessment worksheets

DIRECTIONS TO EVALUATOR:

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT
(* = CRITICAL STEP)

STANDARD

TIME START _____

CUE: Hand the candidate a copy of attachment 5 for risk assessment.

____ 1. Review Attachment 5

Determines that Part A is used to assess the schedule risk

CUE: Hand the candidate a copy of the Integrated Work Schedule.

____ 2. Reviews Integrated Work Schedule

Determines STP O-7A-1 is scheduled, 12 CS pump conflicts with the STP performance

Circles "YES" for A.1 for Unit 1

CUE: Acknowledge the need to reschedule STP O-7A until 12 CS Pump is returned to service.

____ 3. **IF "YES", STOP and reschedule appropriate work activity or manager the risk using a Contingency Plan as a MEDIUM or HIGH Risk activity.**

Determines that the scheduled STP O-7A should be deferred until 12 CS pump is returned to service.

TIME STOP _____

TERMINATING CUE: This task is complete it is determined that STP O-7A has to be rescheduled. No further actions are required.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032040080 COMPLETE RISK ASSESSMENT WORKSHEETS

Document below any instances of failure to comply with industrial safety practices, radiation safety practices and use of event free tools

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

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK 032040080

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 CRS.
 - Comply with industrial safety practices, radiation safety practices and use of event free tools.
2. Initial Conditions:
 - a. Unit 1 is at 100% power.
 - b. Work is in progress per the Integrated Work schedule. Today is Friday morning
 - c. The CRS notifies you that 12 CS Pump has excessive seal leakage and has been placed in PTL and isolated.
 - d. You are performing the duties of the OWC.
3. Initiating Cue: The Shift Manager has requested that you assess the schedule risk of 12 CS pump being OOS using Attachment 5 in NO 1-117. Are there any questions? You may begin.

ATTACHMENT 5, SCHEDULE RISK ASSESSMENT WORKSHEET FOR OPERATING
UNITS (MODES 1, 2, & 3) (Page 1 of 6)

Section 1.	SCHEDULED WORK RISK ASSESSMENT	UNIT 1	UNIT 2
A. OPERATIONS	<p>1. Are there any daily work activities scheduled concurrently that could result in a more restrictive Tech Spec Action Statement or TRM requirements?</p> <p>If "YES," STOP and reschedule appropriate work activity or manage the risk using a Contingency Plan as a MEDIUM or HIGH Risk activity.</p> <p>2. Are there any activities requiring Operations to place the plant in a non-standard lineup to support tagging equipment out-of-service to support work execution? Do any activities require a non-standard sequencing of tagging activities or multiple boundary modifications to support schedule work execution?</p> <p>3. Could the activity potentially degrade containment integrity, e.g., planned containment entry) or degrade containment cooling capabilities? Example: Containment Spray System, Containment Air Coolers.</p> <p>4. Activity places a system in a configuration that could result in an inadvertent or unplanned actual change in reactivity or change in indications used to monitor reactivity? (Refer to NO-2-100, Reactivity Management, for guidance on what components affect reactivity.) [B-5]</p> <p>If the answer is "YES" to ANY preceding question, the OWC is responsible for making the final risk determination.</p>	<p>YES NO</p> <p>YES NO</p> <p>YES NO</p> <p>YES NO</p>	<p>YES NO</p> <p>YES NO</p> <p>YES NO</p> <p>YES NO</p>
B. RMGs	<p>1. Does the maintenance activity place an SSC in a configuration that would result in a unit trip or transient upon coincidental failure of a redundant system, train, or channel, e.g., RPS, ESFAS, or AFAS channel tripped and not bypassed, Condensate or Condensate Booster Pump removed from service? [B0465]</p> <p>2. Would incorrect performance of the maintenance activity, including troubleshooting per MN-1-110, Troubleshooting and Procedure Controlled Activities, would result in a unit trip, or has the maintenance activity resulted in a Unit Trip, or Trip Near Miss in the past?</p> <p>3. Would incorrect performance of the maintenance activity result in an unplanned unit transient, safety system actuation, or radiation release, or the maintenance activity has resulted in an unplanned Unit Transient in the past?</p>	<p>YES NO</p> <p>YES NO</p> <p>YES NO</p>	<p>YES NO</p> <p>YES NO</p> <p>YES NO</p>

ATTACHMENT 5, SCHEDULE RISK ASSESSMENT WORKSHEET FOR OPERATING
UNITS (MODES 1, 2, & 3) (Page 2 of 6)

Section I.	SCHEDULED WORK RISK ASSESSMENT (Continued)	UNIT 1	UNIT 2
B. RMGs (Continued)			
<p>4. For work activities being performed on a redundant system train or channel that is being depended on to support plant operation due to the other system or train being out-of-service (e.g., work on a condensate pump with another condensate pump out of service, or work on channel "A" RPS with another channel tripped, but not bypassed) this activity is Nuclear Safety HIGH Risk. [B0458]</p> <p>If the answer is "YES" to ANY preceding question, the RMGs are responsible for making the final risk determination.</p>	<p>YES NO HIGH</p>	<p>YES NO HIGH</p>	
<p>5. Does the maintenance activity remove equipment from service important to generation or operational safety of the plant?</p>	<p>YES NO</p>	<p>YES NO</p>	
<p><u>Example of Systems/Equipment</u></p>			
<ul style="list-style-type: none"> • Condensate or Condensate Booster Pumps • SGFPs and MFWCS • Circulating Water Pumps • Condenser Air Removal Units (Applicable only during May-Sept.) • EHC Pumps and Fluid System • Stator Liquid Cooling System (Applicable to Unit 1 only) • Feedwater Heater Level Control (11/21, 12/22, and 16/26) • Heater Drain Pumps • Main Turbine and Control • 120V Vital AC • CEDM MG Sets • Aux Steam Header • Swyd. Control House Equipment • 500KV High Lines 			
<p>6. Will incorrect performance of the maintenance activity cause the loss of a 13KV, 4KV, or 480V Bus, an MCC Load Center, 1/2Y09 or 1/2Y10?</p>	<p>YES NO</p>	<p>YES NO</p>	
<p>7. Are there any concurrent Risk Significant (MEDIUM or HIGH) Work activities scheduled in any of the following areas?</p>	<p>YES NO</p>	<p>YES NO</p>	
<ul style="list-style-type: none"> • Auxiliary Feedwater Rooms • D/G Rooms (Safety-related Diesels) • 500 KV Switchyard, including the Switchyard Control House • Cable Spreading Room • 4KV Vital Buses, including Switchgear Rooms • 13KV Metal Clad Areas • 480V Buses • SGFPS • Control Room Panels 			

**ATTACHMENT 5, SCHEDULE RISK ASSESSMENT WORKSHEET FOR OPERATING
UNITS (MODES 1, 2, & 3) (Page 3 of 6)**

Section I. SCHEDULED WORK RISK ASSESSMENT (Continued)	UNIT 1	UNIT 2
<p>B. RMGs (Continued)</p> <p>7. (Continued) If "YES," concurrent risk significant activities in these areas shall be rescheduled so that risk significant activities are not being conducted in more than one of these areas at any time, unless GS-NPO permission has been obtained and a Contingency Plan put in place.</p> <p>8. Is the work activity System Outage Window (SOW) estimated to take greater than or equal to 50% of a Tech Spec Action Statement or TRM requirements.</p> <p>If the answer is "YES" to ANY preceding question during peak LMP or MEG, or during July 1st through September 1st, consider stopping and rescheduling the work activity, or consider managing the activity as Corporate High Risk. The RMGs are responsible for making the final risk determination.</p>	<p>YES NO</p>	<p>YES NO</p>
<p>C. RADIOLOGICAL RISK QUESTIONS</p> <p>1. Radiation Control Shift Supervisor - Is there any RP HIGH/RP MEDIUM Risk Work scheduled during the Work week?</p> <p>2. Radiation Control Shift Supervisor/OWC: Is there a potential for radiological conditions to exceed the limits for RP HIGH Risk approval level, or exceed the limits for RP MEDIUM Risk Work as defined in RP-1-102, Control of Radiation Protection Risk Significant Work, as a result of changing system line-ups in support of scheduled plant operations or while conducting other planned Work concurrently (example - work activities and operational evolutions are provided below)?</p> <p>Example Work Activities and Operational Evolutions</p> <ul style="list-style-type: none"> ✓ Hydrogen peroxide injection (or any crud burst causing evolution) ✓ Initiating or changing letdown ✓ Changing charging pump line-up (e.g., 1 to 2 pump operation) ✓ Resin transfer (e.g., ion exchanger SRMT) ✓ Degassing primary system ✓ Plant start-up and shutdown ✓ Shutdown cooling operations ✓ Jobs involving cutting, welding, or grinding on potentially contaminated systems 	<p>YES NO</p> <p>YES NO</p>	<p>YES NO</p> <p>YES NO</p>

ATTACHMENT 5, SCHEDULE RISK ASSESSMENT WORKSHEET FOR OPERATING
UNITS (MODES 1, 2, & 3) (Page 4 of 6)

Section I. SCHEDULED WORK RISK ASSESSMENT (Continued)	UNIT 1	UNIT 2
C. RADIOLOGICAL RISK QUESTIONS (Continued) If "YES" to either C.1 or C.2, resolve schedule conflict and denote precautions for conducting Work safely and efficiently (e.g., avoiding concurrent performance of affected activities or evolutions) and the Radiological Risk Management Summary Table in RP-1-102. Include the completed Radiological Risk Management Summary Table from RP-1-102 with the POD.		
NOTE: The LOW, MEDIUM and HIGH threshold values for PRA Risk or Trip Risk are set by GS-NPO.		
D. PRA RISK QUESTIONS 1. REU - Frequency of Core Damage posed by scheduled work activities. 2. PES - Work Activity will cause contribution to an "Unavailability Time" Maintenance Rule Performance Indicator that is in (a)(1) or such that the activity may cause the indicator to enter (a)(1). 3. Work activity will cause a contribution to an "unavailability time" NRC Performance Indicator, such that the activity may cause the indicator to approach or transition from Green to White, White to Yellow, or Yellow to Red. If "YES," to question 2 or 3, ensure <u>Attachment 3, Section 2, Requirements 14, 15, 16, and 17</u> , are evaluated for applicability to minimize unavailability time.	LOW MED HIGH YES NO YES NO	LOW MED HIGH YES NO YES NO
E. TRIP RISK QUESTION for REU 1. Peak Unit Trip Risk posed by scheduled work activities. For High Trip Risk activities, OWC shall evaluate availability of equipment required for mitigation of a trip, unit shutdown, or recovery from a trip. For High Trip Risk Activities during peak LMP or MEG, or during July 1st through September 1st, reschedule the work activity, or manage the activity as Corporate High Risk.	LOW MED HIGH	LOW MED HIGH
F. TECH SPEC ACTION STATEMENT OR TRM REQUIREMENTS QUESTIONS 1. PES - Risk of entering Tech Spec Action Statement or TRM requirements, which requires the unit to be shut down, inadvertently while setting prerequisite plant conditions for work activity. For identified Tech Spec Action Statement or TRM requirements equipment with a TSAS of 7 days or less, condition of redundant equipment tested to set prerequisite conditions shall be factored in to determine level of risk. (Equipment condition based on Plant Engineering System Report Card.)	LOW MED HIGH	LOW MED HIGH

ATTACHMENT 5, SCHEDULE RISK ASSESSMENT WORKSHEET FOR OPERATING
UNITS (MODES 1, 2, & 3) (Page 5 of 6)

Section I.	SCHEDULED WORK RISK ASSESSMENT (Continued)	UNIT 1	UNIT 2
F.	TECH SPEC ACTION STATEMENT OR TRM REQUIREMENTS QUESTIONS (Continued)		
2.	<p>PES - Risk of work activity identifying equipment degradation requiring the unit to be shut down if the time frame of a Tech Spec Action Statement or TRM requirements is exceeded before restoring equipment to operable status.</p> <p>For identified Tech Spec Action Statement or TRM requirements equipment to be taken out-of-service with a TSAS of 7 days or less, condition of equipment shall be factored in to determine level of risk. (Equipment condition based on Plant Engineering System Report Card.)</p> <p>Considerations to manage the risk must include #28 on Attachment 3, Section 2.</p>	<p>LOW MED HIGH</p>	<p>LOW MED HIGH</p>
3.	<p>RMGs - Risk of work activity exceeding time frame of Tech Spec Action Statement or TRM requirements.</p> <p>For work activities identified in answering 'YES' to question <u>B.8</u>, condition of equipment shall be factored in to determine level of risk. (Equipment condition based on Plant Engineering System Report Card.)</p>	<p>LOW MED HIGH</p>	<p>LOW MED HIGH</p>
4.	<p>OWC/WWC - For work activities identified in answering "YES" to question <u>B.8</u>, if SOW is estimated to take $\geq 50\%$ of a Tech Spec Action Statement or TRM requirements, the activity is MEDIUM Corporate Risk.</p> <p>For work activities identified in answering "YES" to question <u>B.8</u>, if SOW is estimated to take $\geq 75\%$ of a Tech Spec Action Statement or TRM requirements, the activity is High Corporate Risk.</p> <p>Considerations to manage the risk must include #28 on Attachment 3, Section 2.</p>	<p>YES NO MED</p> <p>YES NO HIGH</p>	<p>YES NO MED</p> <p>YES NO HIGH</p>
G.	OTHER UNIT CONSIDERATIONS. OPERATIONS / RMGS (OUTAGE MANAGEMENT - If the other unit is shut down.)		
1.	Are there any scheduled activities on the other Unit that could conflict and result in a more restrictive Tech Spec Action Statement or TRM requirements on the assessed Unit?	<p>YES NO</p>	<p>YES NO</p>
2.	Are there any work activities scheduled on the other Unit that could conflict with the requirements of the assessed Unit, e.g., Modes 1-3?	<p>YES NO</p>	<p>YES NO</p>

**ATTACHMENT 5, SCHEDULE RISK ASSESSMENT WORKSHEET FOR OPERATING
UNITS (MODES 1, 2, & 3) (Page 6 of 6)**

Section I.	SCHEDULED WORK RISK ASSESSMENT (Continued)	UNIT 1	UNIT 2
H. WWC			
1.		YES	YES
Are there other risk significant activities identified during maintenance order planning using Attachment 2 and Attachment 3 (or identified according to NO-I-102 or MN-I-117)?		NO	NO
Document on Attachment 7 all requirements for each MEDIUM and HIGH Risk activity requiring compensatory actions. Refer to Attachment 3, Section 2.			

Document on Attachment 7, Schedule Risk Assessment Summary Table, all requirements for each MEDIUM and HIGH Risk activity, or any LOW Risk activities requiring compensatory actions per the OWC, including verbal agreements in the Comments column. Refer to Section 2 of Attachment 3, Managing and Approving Risk Significant Work.

Section II. CONTINGENCY PLAN: RMG prepares as directed, OWC approves.	
<p>A. Document applicable contingencies using Attachment 7, Schedule Risk Assessment Summary Table, for each work activity.</p> <ol style="list-style-type: none"> 1. Plan required for restoration of equipment, if determined that Tech Spec Action Statement or TRM requirements may be exceeded (MEDIUM or HIGH Risk). 2. Redundant equipment required to be tested before work evolution. (Designate equipment and test). 3. Redundant equipment required to be "Flagged-Off" during work evolution. (Designate equipment). 4. Lead RMG, Designated Lead Point of Contact (DLPC) for each shift. 5. Methods implemented to minimize risk. <ol style="list-style-type: none"> a. Provide alternate equipment function, e.g., installation of temporary diesel or air compressor. b. Minimize equipment OOS time. 6. Emergency Tech Spec Waiver. 7. Other Contingency actions (refer to Attachment 3, Section 2). 	



CALVERT CLIFFS NUCLEAR POWER PLANT

INTEGRATED WORK SCHEDULE

Work Week 0032

UNIT 1

Power: 100%
 4 A.M. Load: 842 MWe Net
 RCS Leak Rate: .0612 GPM
 Trip Risk: Low
 PRA Risk: Low

UNIT 2

Power: 100%
 4 A.M. Load: 841 MWe Net
 RCS Leak Rate: .2691 GPM
 Trip Risk: Low
 PRA Risk: Low

UNIT	HIGH RISK WORK	MO #	RISK CLASS
0	Remove Fill Head From Process Shield	0200000788	Radiological

UNIT	ACTION STATEMENT	50% LCO	EXPIRES	ECD

WWC: John Scaparro X-4325/Bpr # 2252
 OWC: Tim Huber X-7367

RCSS: Bobby Holland X-2529/Bpr #0864
 WCU-SRO: Kevin Umphrey X-4367/Bpr #1606

"We sometimes judge ourselves by what we feel we are capable of doing, but others judge us by what we have already done!"

QSS Week 32 Revision 2 Risk Evaluation

Evaluated on 8/3/2000 by Jeff Stone at extension 6510 or pager 0530.

The WWC is John Scaparro

	07-Aug-00 Monday	08-Aug-00 Tuesday	09-Aug-00 Wednesday	10-Aug-00 Thursday	11-Aug-00 Friday	12-Aug-00 Saturday	13-Aug-00 Sunday	Weekly Results	
Plant Trip Risk Level	L	L	L	M	L	L	L	M	
Peak Plant Trip Risk	1.22	1.22	1.66	3.73	1.38	1.00	1.00	3.73	Weekly Peak Trip Risk
Daily Risk Level	L	L	L	L	L	L	L	L	
Daily Peak Risk	1.03	1.03	1.33	2.34	1.15	1.00	1.00	2.34	Weekly Peak Risk
Daily Average Risk	1.01	1.01	1.08	1.08	1.02	1.00	1.00	1.03	Weekly Risk
Percent Daily Risk Increase	1%	1%	8%	8%	2%	0%	0%	3%	Average Percent Daily Risk Increase
Percent Annual Risk Increase	0.00%	0.00%	0.02%	0.02%	0.01%	0.00%	0.00%	0.06%	Percent Annual Risk Increase

The highest peak trip risk occurs on Thursday and is classified medium (3.73).
This lasts for approximately 1 hour during STP O-047A-1.

The highest peak risk occurs on Thursday and is classified low (2.34).
This lasts for approximately 1 hour during STP O-047A-1.

NOTE: THE PLANT TRIP RISK LEVEL THRESHOLDS ARE SET AS FOLLOWS:

0-2 X NORMAL: LOW
2-4 X NORMAL: MEDIUM
> 4 X NORMAL: HIGH

THE PRA RISK LEVELS ARE SET AS FOLLOWS:

0-3 X NORMAL: LOW
3-10 X NORMAL: MEDIUM
> 10 X NORMAL: HIGH

General Notes

Unit 2

QSS Week 32 Revision 2 Risk Evaluation

Evaluated on 8/3/2000 by Jeff Stone at extension 6510 or pager 0530.

The WWC is John Scaparro

	07-Aug-00 Monday	08-Aug-00 Tuesday	09-Aug-00 Wednesday	10-Aug-00 Thursday	11-Aug-00 Friday	12-Aug-00 Saturday	13-Aug-00 Sunday	Weekly Results	
Plant Trip Risk Level	L	L	L	L	L	M	L	M	
Peak Plant Trip Risk	1.44	1.44	1.54	1.53	1.54	2.36	1.16	2.36	Weekly Peak Trip Risk
Daily Risk Level	L	L	L	L	L	L	L	L	
Daily Peak Risk	1.06	1.06	1.44	1.08	1.15	1.18	1.08	1.44	Weekly Peak Risk
Daily Average Risk	1.06	1.06	1.13	1.06	1.03	1.03	1.00	1.05	Weekly Risk
Percent Daily Risk Increase	6%	6%	13%	6%	3%	3%	0%	5%	Average Percent Daily Risk Increase
Percent Annual Risk Increase	0.02%	0.02%	0.04%	0.02%	0.01%	0.01%	0.00%	0.10%	Percent Annual Risk Increase

The highest peak trip risk occurs on Saturday and is classified medium (2.36).

This lasts for approximately 4 hours during performance of STP O-029-2.

The highest peak risk occurs on Wednesday and is classified low (1.44).

This lasts for approximately 8 hours during rod movement for PSTP 04 and work on Condensate Booster Pump Mini-Flow CV.

NOTE: THE PLANT TRIP RISK LEVEL THRESHOLDS ARE SET AS FOLLOWS:

0.2 X NORMAL: LOW

2.4 X NORMAL: MEDIUM

> 4 X NORMAL: HIGH

THE PRA RISK LEVELS ARE SET AS FOLLOWS:

0.3 X NORMAL: LOW

3-10 X NORMAL: MEDIUM

> 10 X NORMAL: HIGH

General Notes

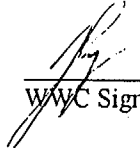
ATTACHMENT 7, SCHEDULE RISK ASSESSMENT SUMMARY TABLE

SCHEDULE RISK ASSESSMENT SUMMARY TABLE

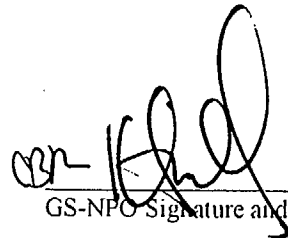
Attachment 5 ☒ Attachment 6 ☐ (Check One or Both, as applicable)

QSS Week 0032

Day	Work Activity (System/Train/ Equipment)	Specific Affected Systems Equipment	System Outage Window (SOW) Duration	Applicable MO(s)	Lead RMG(s)	Results From Risk Assessment of Work Activity (MED/HIGH LOW w/ Reason or Comp. Actions Req'd)	Applicable Tech Spec Action Statement or TRM requirements	Considerations and Requirements (Att.3, Section 2)	Compensatory Actions / Contingency Plan for Work Activity (Section 2) / Comments
MON THRU FRI	REPLACEMENT OF UNIT-1 & 2 TENDON CAPS	059	40	0199802008	MAJ	IMR [H.1]	N/A	1,10,30	RISK ASSOCIATED WITH CONFINED SPACE.
MON THRU FRI	REPAIR AUX BUILDING ROOF	102	40	0199900889	BNL	IMR [H.1]	N/A	1,10,30	RISK ASSOCIATED WITH ASBESTOS REMOVAL.
MON THRU FRI	12 WASTE NEUTRALIZING TANK RESTORATION	022	40	0199902433	MC	IMR [H.1]	N/A	1,10,30	RISK ASSOCIATED WITH CONFINED SPACE WORK.

 7/31/00
WWC Signature and Date for pages 1 to 7

 8-1-00
OWC Signature and Date for pages 1 to 7

 8/3/00
GS-NPC Signature and Date for pages 1 to 7
Pg. 1 of 7

ATTACHMENT 7, SCHEDULE RISK ASSESSMENT SUMMARY TABLE

SCHEDULE RISK ASSESSMENT SUMMARY TABLE

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MON THRU FRI	SCAFFOLD BUILDING IN UNIT-1 45' & 27' SWGR RMS	032	40	1200002230	M2	NMR [H.1]	N/A	1,10,30	RISK ASSOCIATED WITH LOCATION NEAR TRIP SENSITIVE EQUIPMENT.
MON THRU THUR	UNIT-2 PSTP-04 SUPPORTING ROD MOVEMENT	064	86	N/A	OPS	NMR [A.4]	N/A	33	NMR ACTIVITIES CONTROLLED BY NO-1-102; CONDUCT OF INFREQUENT TEST OR EVOLUTIONS. CONSIDER R/S PSTP IF MEG OR LMP IS IN EFFECT.
MON	STP-O-073D-2 CHARGING PUMP PERFORMANCE	041	4	N/A	OPS	NMR [A.4 H.1]	3.5.2.A TRM 15.1.2.A	1, 10, 30	
MON	STP-O-073F-2 BORIC ACID PUMP PERFORMANCE	041	4	N/A	OPS	NMR [A.4 H.1]	3.5.2.A TRM 15.1.2.A	1, 10, 30	

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QSS Week 0032

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MON	U-2 RPS CH. 'A'; REPLACE TRIP TEST CABLE	058	19	2199802393	IM2	LOW	3.3.1	1,8,15,30	OI-30 TO BE PERFORMED JUST PRIOR TO MO PERFORMANCE.
TUES (PM)	OC DG PE-O-24-8-0-M	024	4	N/A	OPS	NMR [H.1]	N/A	1,8,10,30	CONSIDER R/S PE IF MEG OR LMP IS IN EFFECT.
WED THRU THUR	2-CVC-134; 21/22 IX SERIES STOP REPAIR	041	38	2200002003	FINM	IMR [H.1]	N/A	1,10,30	IMR ASSOCIATED WITH WORKING WITH A POTENTIAL EXPLOSIVE SYSTEM.
WED THRU THUR	2-CVC-135; 21 IX OUT SERIES/ PARALLEL STOP REPAIR	041	38	2200002350	FINM	IMR [H.1]	N/A	1,10,30	IMR ASSOCIATED WITH WORKING WITH A POTENTIAL EXPLOSIVE SYSTEM.
WED	CAL/CHECK 2PCV4070A & 2PCV4071A MS AIR REG	083	2	2200000237	IM2	IMR [H.1]	N/A	1,10,30	IMR ASSOCIATED WITH HEAT STRESS AREA; IF >115°F.
WED	INSPECT U-1 MN GEN EXCITATION EQ CHECKLIST	098	2	1200000735	EM1	NMR, IMR [B.2 H.1]	N/A	1,8,9,10,17,22, 32	IMR ASSOCIATED WITH WORKING WITH ENERGIZED EQUIPMENT UP TO 500 VOLTS. CONSIDER R/S CHECKLIST IF MEG OR LMP IS IN EFFECT.

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WED	STP-O-005A-1 AFW SYS TEST (11/13 AFW PP)	036	6	N/A	OPS	LOW [D.3]	3.7.3	1,15,17	MINIMIZE TESTING TIME TO REDUCE IMPACT TO THE NRC PERFORMANCE INDICATOR CRITERIA.
THUR	STP-O-005A-1 AFW SYS TEST (12 AFW PP)	036	3	N/A	OPS	LOW [D.3]	3.7.3	1,15,17	MINIMIZE TESTING TIME TO REDUCE IMPACT TO THE NRC PERFORMANCE INDICATOR CRITERIA.
THUR	23 CONDENSATE BOOSTER PUMP	044	14	2200000077 2200000089 2200000090 2200000091	M2 EM2 IM2	NMR [B.1 B.5]	N/A	1,8,10,15, 17,32	NO EXTENDED OOS. FLAG OFF #21 & #22 CONDENSATE BOOSTER PUMP AND BREAKERS. CONSIDER R/S MO'S IF MEG OR LMP IS IN EFFECT.
THUR	U-2 RPS CH. 'B'; REPLACE TRIP TEST CABLE	058	19	2199902366	IM2	LOW	3.3.1	1,8,15,30	OI-30 TO BE PERFORMED JUST PRIOR TO MO PERFORMANCE.
THUR (PM)	STP-O-087-1 BORATED WATER SOURCE	041	2	N/A	M1	NMR [A.4]	N/A	1,10,30	RISK IS ASSOCIATED WITH POSSIBLE LEAK-BY ON 1MOV514. MO# 1200002405 WILL REPAIR 1MOV514.

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THUR (PM)	1-93-7-O-W, TST MT MASTER TRIP SV'S	093	1	N/A	OPS	NMR [B.2 H.1]	N/A	1,8,9,10,32	SYSTEM OPERATOR BULK POWER APPROVAL REQUIRED. DO NOT PERFORM AT SAME TIME AS STP-O-047A-1. CONSIDER R/S PE IF MEG OR LMP IS IN EFFECT.
THUR (PM)	1-93-14-O-W, AUTO START OF EHC OIL	093	1	N/A	OPS	NMR [H.1]	N/A	1,8,9,10,32	SYSTEM OPERATOR BULK POWER APPROVAL REQUIRED. DO NOT PERFORM AT SAME TIME AS STP-O-047A-1.
THUR (PM)	1-93-15-O-W, OIL TRIP TEST MT	093	1	N/A	OPS	NMR [B.2 H.1]	N/A	1,8,9,10,32	SYSTEM OPERATOR BULK POWER APPROVAL REQUIRED. DO NOT PERFORM AT SAME TIME AS STP-O-047A-1. CONSIDER R/S PE IF MEG OR LMP IS IN EFFECT.

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THUR (PM)	1-93-16-O-W, TEST B/U OVSP TRIP CKT	093	1	N/A	OPS	NMR [H.1]	N/A	1,8,9,10,32	SYSTEM OPERATOR BULK POWER APPROVAL REQUIRED. DO NOT PERFORM AT SAME TIME AS STP-O-047A-1.
THUR (PM)	STP O-047A-1 11 & 12 MSIV 'A' CIRCUIT	083	1	N/A	OPS	NMR, IMR [B.1 B.2 B.3 E.1 H.1]	N/A	1,8,9,10,11,32	IMR ASSOCIATED WITH HEAT STRESS AREA; IF >115°F. DO NOT PERFORM AT SAME TIME AS UNIT-1 TURBINE PE(S).
FRI (AM)	STP O-007A-1 ('A' TRAIN ESFAS LOGIC TEST)	048	6	N/A	OPS	NMR [A.4 B.1 B.2 B.3 H.1]	3.6.6.A	1,8,9,10,32	CONSIDER R/S STP IF MEG OR LMP IS IN EFFECT.
FRI	STP-M-212E-2 (RPS MATRIX FUNCTIONAL TEST)	058	4	N/A	IM2	NMR [B.1]	N/A	1,10,17,18,19, 27,32	CONSIDER R/S STP IF MEG OR LMP IS IN EFFECT.
SAT (AM)	STP-O-029-2 (CEA PARTIAL MOVEMENT TEST)	055	4	N/A	OPS	NMR [A.4 B.2 E.1]	N/A	1,10,17,19,32	

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SAT (PM)	2-93-11-O-W, AUTO START OF MT OIL	093	1	N/A	OPS	NMR [H.1]	N/A	1,8,9,10,32	SYSTEM OPERATOR BULK POWER APPROVAL REQUIRED.
SAT (PM)	2-93-14-O-W, AUTO START OF EHC OIL	093	1	N/A	OPS	NMR [H.1]	N/A	1,8,9,10,32	SYSTEM OPERATOR BULK POWER APPROVAL REQUIRED.
SUN (PM)	STP-O-008A-2 (2A DG & 4KV BUS 21 LOCI SEQ TEST) monthly & quarterly SR.	024	4	N/A	OPS	NMR [B.1 B.2 B.3 B.6 H.1]	3.8.1.B	1,8,9,10,18,20, 21,22,32	NO TRIP SENSITIVE WORK IN SWITCHYARD OR 13KV METALCLAD. PERFORM STP-O-090-2 & OI-49 WITHIN 1 HR OF TAKING THE 2A DG OOS. CONSIDER R/S STP IF MEG OR LMP IS IN EFFECT.

ATTACHMENT 3, MANAGING AND APPROVING RISK SIGNIFICANT WORK
(Page 2 of 2)**Section 2. CONSIDERATIONS TO HELP MANAGE RISK SIGNIFICANT WORK [B0614]****Actions to Manage Risk Significant Work:**

1. Perform a Pre-Job Brief, involving the LT/C, with participants performing the tasks and support personnel directly supporting performance of the Work.
2. Designated Lead Point of Contact (DLPC) assigned to coordinate performance of Work.
3. RGS shall attend the Pre-Job Brief.
4. Prepare Attachment 9, Planning and Approval of HIGH Risk Work.
5. Responsible Group General Supervisors and the applicable GS according to Attachment 3, Section 1, shall approve the Work plan and action to manage the risk.
6. Prepare Attachment 4, Post-Job Review for HIGH Risk Work, or similar form.
7. RGSs are to provide field supervisory monitoring of the HIGH Risk activities, as determined by the approval General Supervisors.
8. Schedule the Work in the Integrated Site Schedule and distribute as part of the POD.
9. A procedure, instruction or Maintenance Order shall be used to control the conduct of the Work.
10. Provide field supervisory monitoring of the Work (job coverage) as determined by the RGS for MEDIUM Risk Work.
11. Provide temporary barriers for transient trip sensitive risk areas as determined by the on-shift Operations Shift Manager or CRS.
12. System Outage Window (SOW) time NOT to exceed 48 hours.
13. System Manager or Alternate available on site for job coverage.
14. Two-shift coverage required.
15. "Round-the-Clock" coverage required.
16. Special coordination for equipment tagging required.
17. Parts and materials for maintenance to be pre-staged.
18. GS-NPO approval required for Work plan and compensatory measures.
19. Tagout and work activity walked down.
20. Switchyard Control House off limits for any other Risk Significant Work activities.
21. No Work shall be performed (approved) on redundant safety-related equipment at the same time, unless approved by GS-NPO.
22. Review applicable industry operating experience prior to job execution.
23. Task-experienced workers selected to perform Work.
24. Mock-up and rehearsal or other special training is required to perform the Work.
25. Develop a response plan for personnel injury.
26. Conduct Integrated Team Planning Meeting.
27. Perform an Integrated Pre-Job Brief, involving the DLPC, RGSs, LT/C, participants performing the tasks.
28. Provide a plan for restoration of equipment if it is determined that the Tech Spec Action Statement or TRM requirements frame will be exceeded.
29. Other applicable requirements to manage the risk of Work as determined by the approval authorities.
30. RGS shall consider the use of Peer Checks.
31. Project schedule reviewed by RGS and OWC.
32. Use of peer checks is mandatory.
33. Action to manage activity identified according to NO-1-102.
34. Action to manage activity identified according to NO-1-103.
35. Action to manage activity identified according to MN-1-117.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032040506 Determine post maintenance testing of pumps and valves

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR**ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE**

TASK: 032040506 Determine post maintenance testing of pumps and valves

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:

15 MINUTES

ACTUAL TIME
TO COMPLETE JPM:

_____ MINUTES

TIME CRITICAL TASK:

NO

TASK LEVEL:

TRAIN

TOOLS AND EQUIPMENT:

None

REFERENCE PROCEDURE(S):

NO 1-208

TASK STANDARDS:

This JPM is complete when administrative task 032040506s completed per NO 1-208.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032040506 Determine post maintenance testing of pumps and valves

DIRECTIONS TO EVALUATOR:

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE

ELEMENT (* = CRITICAL STEP)		STANDARD
TIME START _____		
_____ 1.	Locate NO 1-208	Same as element
_____ 2.	Review Attachment 3, Standard Testing recommendations, to determine the recommended PMOT	<p>Determines 12 LPSI pump is a Safety Related pump</p> <p>Determines 12 LPSI pump has a mechanical seal</p> <p>Determines the operability test for mechanical seal disassembly, is the appropriate STP to measure vibration and pump head/flow</p>

<p>NOTE: The candidate should use the EPM information system to determine the STP for 12 LPSI pump.</p>
--

_____ 4.	Access EPM to determine appropriate STP for test of 12 LPSI pump	Determines that STP O-73J-1 is used as the specified PMOT
----------	--	---

TIME STOP _____

<p>TERMINATING CUE: This task is complete when the specified PMOT is identified as STP O-73J-1 for 12 LPSI pump. No further actions are required.</p>
--

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032040506 Determine PMT of pumps and valves

Document below any instances of failure to comply with industrial safety practices, radiation safety practices and use of event free tools.

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

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK 032040506

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 CRS.
 - Comply with industrial safety practices, radiation safety practices and use of event free tools
2. Initial Conditions:
 - a. Unit 1 is at 100% power.
 - b. The CRS notifies you that 12 LPSI pump has been isolated due to excessive shaft seal leakage. The seal repair and re-assembly is estimated to take about 12 hours.
 - c. You are performing the duties of the OWC.
3. Initiating Cue: The Shift Manager has requested that you determine the Post Maintenance Operability Test per attachment 3 in NO-1-208 and any applicable test procedure. Are there any questions? You may begin.

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control**

Knowledge of radiation exposure limits

K/A 2.3.4 [2.5/3.1]

Question a:

What is the CCNPP Administrative Dose MAXIMUM limit for total dose equivalent (TEDE) that an Operator can receive as the TEDE-ALARA goal and the MAXIMUM CCNPP Administrative limit from all occupational sources?

☐ Satisfactory

☐ Unsatisfactory

Candidate _____

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control
Knowledge of radiation exposure limits**

K/A 2.3.4 [2.5/3.1]

Question a:

What is the CCNPP Administrative Dose MAXIMUM limit for total dose equivalent (TEDE) that an Operator can receive as the TEDE-ALARA goal and the MAXIMUM CCNPP Administrative limit from all occupational sources?

Answer:

1.5 REM (15 mSv) is the ALARA goal, whereas 4.0 REM (40 mSv) is the maximum administrative limit from all occupational sources

Reference Use Allowed? YES

Reference 1 RP-1-100 Table 1, page 22

☐

Satisfactory

☐

Unsatisfactory

Candidate _____

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control**

Knowledge of 10CFR 20 and related facility radiation control requirements

K/A 2.3.1 [2.6/3.0]

Question b:

What radiological restrictions, if any exist for workers in the RCA that have to climb to perform work?

Comments:

☐

Satisfactory

☐

Unsatisfactory

Candidate _____

**Calvert Cliffs Nuclear Power Plant
ADMIN A3 Topics
Radiation Control**

Knowledge of 10CFR 20 and related facility radiation control requirements

K/A 2.3.1 [2.6/3.0]

Question b:

What radiological restrictions, if any, exist for workers in the RCA that have to climb to perform work?

Answer:

Workers are NOT to work in the overhead or any other area unless radiological surveys have been performed OR checked as specified in the SWP.

(Radiological signs and postings apply to general or specific areas up to 8 feet off the floor)

Reference Use Allowed? YES

Reference 1: RP-1-100 Section 5.2 .B Note

Comments:

☐

Satisfactory

☐

Unsatisfactory

Candidate _____

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032170415 Determine appropriate emergency response actions per the ERPIP while maintaining an overview of plant conditions

JOB PERFORMANCE MEASURE

CALVERT CLIFFS NUCLEAR POWER PLANT

LICENSED OPERATOR TRAINING

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032170415 Determine appropriate emergency response actions per the ERPIP while maintaining an overview of plant conditions

PERFORMER'S NAME: _____

APPLICABILITY:

SRO

PREREQUISITES:

Completion of the knowledge requirement of the Initial License class training program for Emergency Response Plan Implementation Procedures.

EVALUATION LOCATION:

SIMULATOR

EVALUATION METHOD:

ACTUAL PERFORMANCE

**ESTIMATED TIME
TO COMPLETE JPM:**

10 MINUTES

TIME CRITICAL TASK:

NO

TASK LEVEL:

LEVEL 1

TOOLS AND EQUIPMENT:

Blank copy of ERPIP 3.0 Attachment 3, Initial Notification Form, DRDT screen, Emergency Response Sector Map

REFERENCE PROCEDURE(S):

ERPIP 3.0

TASK STANDARDS:

This JPM is complete when an EAL classification is determined based on given plant conditions, initial notification form completed, and on-site notification made.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032170415 Determine appropriate emergency response actions per the ERPIP
while maintaining an overview of plant conditions

DIRECTIONS TO EVALUATOR:

None

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT

(* = CRITICAL STEP)

STANDARD

TIME START _____

- | | | |
|----------|--|---|
| _____ 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 | <u>EVALUATE</u> conditions against Attachment 1, Emergency Action Level (EAL) criteria. | Determines a GENERAL EMERGENCY classification is warranted under FISSION PRODUCT BARRIER DEGRADATION, based on 3/3 barriers affected with a loss of at least 2 barriers. (Fuel Clad Barrier-Radiation, coolant activity greater than 600 μ ci/cc, RCS Barrier-Safety Function Status/Functional Recovery, EOP-8 implemented from EOP-6, Contmt Barrier-Coolant Leakage, Steam Generator Tube Rupture in progress and unexpected/uncontrolled release to the environment from the affected Steam Generator for greater than 15 minutes). |
|-------------|--|---|

CCNPP LICENSED OPERATOR
ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE

ELEMENT

STANDARD

(* = CRITICAL STEP)

B. IMPLEMENT EMERGENCY RESPONSE PLAN ACTIONS (ATTACHMENT 2)

- | | | |
|-----------|---|---|
| _____ 1.0 | IF an EAL is satisfied
THEN OBTAIN an Initial
Notification form (Attachment 3 to
this procedure). GO TO the
respective classification tab. | Determines Attachment 4 is
applicable. |
|-----------|---|---|

CUE: Provide examinee with a copy of ERPIP 3.0 Attachments 3 and 4, Initial Notification

NOTE TO EVALUATOR: *This attachment 3 is your copy to follow the operator's actions during this JPM.*

ATTACHMENT 3 INITIAL NOTIFICATION

- | | | |
|------------|-------------------|---|
| _____ 1. | Complete Item 1. | Circles "is not" in Item 1. |
| _____ 2. | Complete Item 2. | Inserts name in Item 2. |
| * _____ 3. | Complete Item 5. | Checks "General
Emergency" in Item 5. |
| * _____ 4. | Complete Item 7. | Enters EAL code and
circles EAL number in Item
7. |
| * _____ 5. | Complete Item 8. | Checks "Is Being Released"
and "From the Plant". |
| * _____ 6. | Complete Item 9. | Checks "Airborne". |
| * _____ 7. | Complete Item 10. | Checks "YES" in Item 10. |
| * _____ 8. | Complete Item 11. | Checks evacuate PAZ 1 &
3 unless conditions makes
evacuation dangerous and
shelter remainder of 10
miles EPZ. |
| _____ 9. | Complete Item 12. | Circles "is not" in Item 12. |

CCNPP LICENSED OPERATOR
ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE

ELEMENT	STANDARD
(* = CRITICAL STEP)	
___ 10. Complete Item 6.	Enter "Time" and "Date".
___ 11. Sign initial notification form.	Enters signature in I.B.
A. COMPLETE THE INITIAL NOTIFICATION FORM (ATTACHMENT 4 GENERAL EMERGENCY)	
___ 1.0 COMPLETE Initial Notification form (Attachment 3) as follows (items not mentioned are self-explanatory).	Obtains Attachment 3 from the evaluator or the "Extra Forms" book.
___ a. Item 6, Time Declared: complete this last.	No action required.
___ b. Item 7, Nature of Incident:	
<p style="text-align: center;"><u>NOTE</u></p> <p>EAL code and number and event code are from ERPIP 3.0, Attachment 1, EALs, Page 1</p> <p>Enter EAL code Circle EAL number Enter two digit event code</p>	
___ c. Item 8, Radioactivity: radioactivity is being/has been released if any of the following conditions are/have been met:	Determines Radioactivity is Being released
___ (1) the release flowpath monitor is/was in alarm	
___ (2) the release is/was greater than Technical Spec limits	
___ (3) the release is/was accidental	
___ d. Item 10, Population Affected: check "YES".	No action required.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT

STANDARD

(* = CRITICAL STEP)

- | | | | |
|-------|----|--|-------------------------|
| _____ | e. | Item 11, Protective Actions
Recommended: select a protective action
from Attachment 5, Prompt Protective
Action Recommendation. | Refers to Attachment 5. |
|-------|----|--|-------------------------|

ATTACHMENT 5 PROTECTIVE ACTION RECOMMENDATION

A. SELECT A PROTECTIVE ACTION RECOMMENDATION

NOTE: A prompt protective action recommendation must be made for General Emergency.

CUE: The release rate is $2.7E5 \mu\text{ci /second}$.

- | | | | |
|-------|-----|--|-------------------------|
| _____ | 1.0 | IF a release exists and ALL of the following conditions are met: | Determines step is N/A. |
| | a. | A controlled release from Containment is to be commenced less than 2 hours and there is assurance that the release will be a short term puff release lasting no more than 2 hours

THEN make the following Protective Action Recommendation:

"Shelter entire 10 mile EPZ" | |

NOTE: Page 2 of this attachment may be used to determine which zone(s) number(s) to put in the parenthesis.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

ELEMENT

(* = CRITICAL STEP)

STANDARD

CUE: When DRDT screen checked, DIR60 is 340°F.

- | | | | |
|------|-----|---|--|
| *___ | 1.1 | IF the criteria of A.1.0 are not satisfied
THEN make the following Protective Action
Recommendation:

"Evacuate [select one] (PAZ 1) (PAZ 1 & 3)
(PAZ 1, 2, & 3) (PAZ 1 & 2) unless
conditions make evacuation dangerous, and
shelter remainder of 10 mile EPZ." | Determines that step is
applicable.

Selects PAZ 1 & 3. |
|------|-----|---|--|

ATTACHMENT 4 (GENERAL EMERGENCY)

B. HAVE THE INITIAL NOTIFICATION TRANSMITTED

- | | | | |
|------|-----|---|-------------------|
| *___ | 1.0 | DIRECT the Control Room Communicator
to transmit the Initial Notification information
to the offsite agencies in accordance with
ERPIP 105, Control Room Communicator,
OFFSITE AGENCY NOTIFICATIONS. | Directions given. |
|------|-----|---|-------------------|

C. NOTIFY ONSITE PERSONNEL

A. NOTIFY ONSITE PERSONNEL

- | | | |
|-----|--|---|
| 1.0 | Direct the Control Room
Communicator to perform the
following: | |
| ___ | a. SOUND the
emergency PA alarm
for 5 seconds. | Sounds alarm for 5 seconds. |
| ___ | b. ANNOUNCE "A
GENERAL
EMERGENCY
exists." Give EAL
category. IF site
assembly has not been
done THEN | Makes the following
announcement:
A general emergency exists
under fission product barrier
degradation. All personnel
report to your assembly area |

CCNPP LICENSED OPERATOR
ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE

ELEMENT (* = CRITICAL STEP)	STANDARD
--------------------------------	----------

ANNOUNCE "All
personnel report to
your assembly area
immediately".

immediately.

CCNPP LICENSED OPERATOR
ADMINISTRATIVE TOPIC
JOB PERFORMANCE MEASURE

ELEMENT
(* = CRITICAL STEP)

STANDARD

- c. **REPEAT** step
C.1.0.a and C.1.0.b of
this attachment once.

Sounds alarm for 5 seconds.

Makes the following
announcement:
"A GENERAL EMERGENCY
exists for Fission Product
Barrier Degradation. All
personnel report to your
assembly area immediately."

TIME STOP _____

TERMINATING CUE:

This JPM is complete when an EAL classification is determined based on given plant conditions, initial notification form completed, and on-site notification made. No further actions are required.

CCNPP LICENSED OPERATOR

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032170415 Determine appropriate emergency response actions per the
ERPIP while maintaining an overview of plant conditions

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

ADMINISTRATIVE TOPIC

JOB PERFORMANCE MEASURE

TASK: 032170415

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 CRS.
 - 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 was at 100% power when the letdown line radiation monitor alarmed.
 - b. RCS sample analysis indicated RCS activity of 650 $\mu\text{ci/cc}$ dose equivalent iodine.
 - c. A plant shutdown, to comply with technical specification requirement, was begun.
 - d. During the shutdown, an automatic reactor trip and safety injection occurred.
 - e. EOP-6 was implemented upon completion of EOP-0, for a SGTR on #11 S/G.
 - f. After failing to meet the Intermediate SFSC of EOP-6, EOP-8 was implemented 20 minutes ago (due to S/G Safety stuck open on #11 S/G).
 - g. You are performing the duties of the Shift Manager.
3. Initiating Cue: You are called to the Control Room to implement the Emergency Response Plan as per step B of EOP-8. Are there any questions? You may begin.

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.

B. IMPLEMENT EMERGENCY RESPONSE PLAN ACTIONS

- 1.0 **IF** an EAL is satisfied,

THEN OBTAIN an ATTACHMENT 3, INITIAL NOTIFICATION FORM (from this procedure).

GO TO the respective classification tab.

General Emergency Actions.. Attachment 4
Site Emergency Actions..... Attachment 9
Alert Actions..... Attachment 11
Unusual Event Actions Attachment 13

- 1.1 **IF** an EAL is **NOT** satisfied,

THEN REPEAT step A.1.0 of this attachment until conditions no longer warrant evaluation.

EXIT this procedure.

**ATTACHMENT 3
INITIAL NOTIFICATION FORM**

Page 1 of 2

USE this form for initial notification and emergency class upgrading and downgrading only.

FORM instructions are on back.

1. This is <u>is not</u> an exercise. (circle one)	8. Radioactivity: <input type="checkbox"/> Has Not Been Released <input checked="" type="checkbox"/> Is Being Released: <input type="checkbox"/> From The Plant <input type="checkbox"/> In The Plant <input type="checkbox"/> Has Been Released: <input type="checkbox"/> From The Plant <input type="checkbox"/> In The Plant
2. Name of Caller:	
3. Title/Organization: BGE	
4. Facility: CALVERT CLIFFS	
5. Emergency Class: <input type="checkbox"/> None <input type="checkbox"/> Unusual Event <input type="checkbox"/> Alert <input type="checkbox"/> Site Emergency <input checked="" type="checkbox"/> General Emergency	9. Type of Release: <input type="checkbox"/> None <input checked="" type="checkbox"/> Airborne <input type="checkbox"/> Waterborne <input type="checkbox"/> Surface Spill
6. Time Declared: _____ Date: _____	10. Population Affected: <input type="checkbox"/> None <input checked="" type="checkbox"/> Yes
7. Nature of Incident: <input type="checkbox"/> None Enter EAL Code (<u>B</u> <u>G</u> <u>1</u>) Circle EAL Number <u>N/A</u> 1 2 3 4 5 6 Enter two digit event code: <u>5</u> <u>9</u>	11. Protective Action Recommended (choose one only): <input type="checkbox"/> None <input type="checkbox"/> Shelter entire 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ <input checked="" type="checkbox"/> Evacuate PAZ 1 & 3 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1, 2, & 3 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ <input type="checkbox"/> Evacuate PAZ 1 & 2 unless conditions make evacuation dangerous and shelter remainder of the 10 mile EPZ
	12. This is <u>is not</u> an exercise. (circle one)

Site Emergency Coordinator signature: _____

NOTE

Maryland State Police receives calls for Maryland Emergency Management Agency until their offices are manned. Maryland Department of the Environment Security receives calls for Maryland Department of the Environment until their offices are manned.

	LOCATION	TIME	RECEIVED BY	DEDICATED PHONE	RADIO	OUTSIDE LINE
1.	CALVERT					(410-535-3491)
2.	ST. MARY'S					(301-475-8016)
3.	DORCHESTER					(410-228-2222)
4.	MEMA (or MSP)					(410-517-3600)
5.	MDE					(410-631-3937)
** NOTIFY the NRC immediately after the above agencies have been notified.**						
6.	NRC					(301-816-5100)

RECORD time all calls to above agencies were completed: _____

Communicator signature: _____

FORWARD TO EMERGENCY PLANNING UNIT UPON TERMINATION OF EMERGENCY CONDITION

ATTACHMENT 4
GENERAL EMERGENCY ACTIONS

Page 1 of 3

ACTIONS FOR SHIFT MANAGER

A. COMPLETE THE INITIAL NOTIFICATION FORM

- 1.0 **COMPLETE ATTACHMENT 3, INITIAL NOTIFICATION FORM**, as follows (items not mentioned are self-explanatory).
- a. Item 6, Time Declared: complete this last.
 - b. Item 7, Nature of Incident:

- NOTE -

EAL code and number and event code are from ERPIP 3.0, ATTACHMENT 1, EALS, PAGE. 1.

Enter EAL code.
Circle EAL number.
Enter two-digit event code.
 - c. Item 8, Radioactivity: radioactivity is being/has been released if any of the following conditions are/have been met:
 - (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.
 - d. Item 10, Population Affected: check "YES."
 - e. Item 11, Protective Actions Recommended: select a protective action from ATTACHMENT 5, GENERAL EMERGENCY PROTECTIVE ACTION RECOMMENDATIONS.

B. HAVE THE INITIAL NOTIFICATION TRANSMITTED

- 1.0 **DIRECT** the Control Room Communicator to transmit the Initial Notification information to the offsite agencies according to ERPIP 105, CONTROL ROOM COMMUNICATOR, OFFSITE AGENCY NOTIFICATIONS.

ATTACHMENT 4
GENERAL EMERGENCY ACTIONS

Page 3 of 3

ACTIONS FOR SHIFT MANAGER

G. RELEASE PERSONNEL	
1.0 IF site personnel that do not have an emergency organization position have been released from the site, THEN GO TO step H. UPDATE STATE AND COUNTIES.	1.1 IF site personnel that do not have an emergency organization position have not been released from the site, THEN DIRECT that they be released from site. COORDINATE release through the Security Supervisor.
H. UPDATE STATE AND COUNTIES	
<p>1.0 UPDATE State and Counties when either of the following conditions occur as follows:</p> <ul style="list-style-type: none"> • Within 1 hour of significant plant condition changes (e.g., start of significant offsite release; significant release change). • When three hours has elapsed since the last update. <p>a. Obtain an ATTACHMENT 6, FOLLOW-UP COMMUNICATION FORM. RETURN to this part.</p> <p>b. COMPLETE the Follow-up Communication form.</p> <p>c. INSTRUCT the Communicator to transmit the form information to State and County agencies ACCORDING TO ERPIP 105, CONTROL ROOM COMMUNICATOR, OFFSITE AGENCY NOTIFICATIONS.</p> <p>2.0 REPEAT step H. UPDATE STATE AND COUNTIES of this attachment until relieved of Interim-SEC responsibilities. DO NOT downgrade from General Emergency. DO NOT change the General Emergency Protective Action Recommendation.</p>	<p>1.1 IF State or County agencies need more detailed information, THEN consider ATTACHMENT 7, DETAILED FOLLOW-UP COMMUNICATION FORM.</p> <p>a. OBTAIN ATTACHMENT 7, DETAILED FOLLOW-UP COMMUNICATION. RETURN to this part.</p> <p>b. ASSIGN someone to complete the form and return it for your review and signature.</p> <p>c. INSTRUCT the Communicator to transmit the form information to State and County agencies according to ERPIP 105, CONTROL ROOM COMMUNICATOR, OFFSITE AGENCY NOTIFICATIONS.</p>

ATTACHMENT 5
GENERAL EMERGENCY PROTECTIVE ACTION RECOMMENDATIONS

Page 1 of 2

A. SELECT A PROTECTIVE ACTION RECOMMENDATION

- NOTE -

A protective action recommendation must be made for General Emergency.

- 1.0 **IF** a controlled release of radioactive material from containment is to be commenced in less than 2 hours **AND** there is assurance that the release will be a short term puff release lasting no more than 2 hours:

THEN make the following Protective Action Recommendation:

“Shelter entire 10 mile EPZ.”

- NOTE -

Page 2 of this attachment may be used to determine which protective action zones (PAZs) are affected.

- 1.1 **IF** the criteria of A.1.0 are not satisfied, **THEN** make the following Protective Action Recommendation:

Evacuate [select one] (PAZ 1) (PAZ 1 & 3) (PAZ 1, 2, & 3) (PAZ 1 & 2) unless conditions make evacuation dangerous, and shelter remainder of 10 mile EPZ.”

ATTACHMENT 5

GENERAL EMERGENCY PROTECTIVE ACTION RECOMMENDATIONS

Page 2 of 2

Use DIR 10 or DIR 60 from meteorological data screen (DRDT) for direction wind is from. Given direction wind is from, determine the down wind sector and appropriate PAZs:

- If the down wind sector is one of the following: A, B, C, D, E, F, then evacuate PAZ 1
- If the down wind sector is one of the following: G, H, J, K, then evacuate PAZ 1 and 3
- If the down wind sector is L, then evacuate PAZ 1, 2, and 3
- If the down wind sector is one of the following: M, N, P, Q, R, then evacuate PAZ 1 and 2

