

Facility: Indian Point 2		Date of Examination: 3/10/2003	
Examination Level: SRO		Operating Test Number: 1	
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	
A.1a	Conduct of Operations	2.1.7 Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation. (3.7/4.4) JPM: Review a QPTR calculation and direct appropriate actions	<i>Sept 03</i>
A.1b	Conduct of Operations	2.1.18 Ability to make accurate, clear, and concise logs, records, status boards, and reports. (2.9/3.0) JPM: Review Control Room Log Entries	<i>Sept 03</i> <i>R.O.</i>
A.2	Equipment Control	2.2.17 Knowledge of the process for managing maintenance activities during power operations. (2.3/3.5) JPM: Review (for approval) a completed surveillance for Tech Spec required equipment	<i>✓</i>
A.3	Non-Emergency dose limits question	2.3.4 (3.1) Knowledge of radiation exposure limits and contamination control, including permissible levels in excess of those authorized. QUESTION: Given the plant in a SAE and a personnel exposure history, determine the exposure limit for a Non-Emergency operation.	<i>?</i>
	Emergency Exposure Limits Question	2.3.2 (2.9) Knowledge of facility ALARA program. QUESTION: Given a situation requiring valve alignment verification in a radiation area, determine the waiver requirements for independent or concurrent verification of a locked valve and identify an alternate process for verification.	<i>?</i>
A.4	Emergency Plan	2.4.44 Knowledge of Emergency Plan Protective Action Recommendations. (2.1/4.0) JPM: Perform Protective Action Recommendation	<i>cont.</i>

Facility: Indian Point Unit 2 Task No.: N/A
 Task Title: Perform A QPTR Calculation And Direct Appropriate Actions JPM No.: 2003 NRC A1a SRO
 K/A Reference: 039 A2.01 (3.2)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X
 Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: The plant is at 100% power.

NIS power range channel N-41 is out of service.

Task Standard: Determines QPTR outside of TS limits and initiates corrective action IAW Technical Specifications

Required Materials: SOP-15.3 Rev 16
 DSR 4B
 Calculator

General References: SOP-15.3 Rev 16
 DSR-4B

Handouts: Partially completed DSR-4B

Initiating Cue: The Shift manager has directed you to calculate QPTR manually using the given detector currents in accordance with the appropriate procedure, determine if the calculated values meet Technical Specification limits, and any appropriate actions to take, if necessary

Time Critical Task: NO

Validation Time: 20 Minutes

(Denote Critical Steps with an asterisk)

Note: The purpose of this JPM is to have the candidate calculate QPTR and to correctly apply the TS actions. The candidate will be provided a DSR-4B with upper and lower NIS detector currents already filled out.

Performance Step: 1 Obtain SOP-15.3
Standard: Obtains procedure

Comment: **Cue: Hand candidate a copy of partially filled out DSR-4B**

Performance Step: 2 Record top and bottom detector currents
Standard: Refers to DSR-4B for currents

Comment:

Performance Step: 3 Record date, time, and average reactor power
Standard: Records on DSR-4B

Comment:

* **Performance Step: 4** Divide each detector current output by corresponding normalization factor
Standard: Locates normalization factors and divides. Will only use 3 detectors, so denominator will be 3

Comment:

* **Performance Step: 5** Calculate average normalized ratio for top and bottom detectors
Standard: Performs calculation

Comment:

-
- * **Performance Step: 6** Calculate Quadrant Power Tilt for top and bottom detectors
Standard: Performs calculation

Comment:
- Performance Step: 7** Record Highest Quadrant Power Tilt and appropriate signatures
Standard: Records and signs DSR-4B

Comment:
- Performance Step: 8** Document results
Standard: Enters data on DSR-1

Comment: **Cue: DSR-1 entry made be made later**
- * **Performance Step: 9** Determine requirements of TS 3.10.3 are NOT met
Standard: Refer to TS 3.10.3 and determine that QPTR exceeds 1.02 and determine that a power reduction is necessary

Comment:
- Terminating Cue:** When the candidate has determined appropriate action per TS, the evaluation for this JPM is complete

Job Performance Measure No.: IP2 2003 NRC A1a SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS:

The plant is at 100% power.

NIS power range channel N-41 is out of service

INITIATING CUE:

The Shift manager has directed you to calculate QPTR manually using the given detector currents in accordance with the appropriate procedure, determine if the calculated values meet Technical Specification limits, and any appropriate actions to take, if necessary

Facility: Indian Point Unit 2 Task No.: N/A
 Task Title: Review Control Room Log Entries JPM No.: 2003 NRC A1b SRO
 K/A Reference: 2.1.18 (3.0)

Examinee: _____ NRC Examiner: _____
 Facility Evaluator: _____ Date: _____
Method of testing:
 Simulated Performance: _____ Actual Performance: X
 Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: The surveillances required by DSR-1 are complete for 0700
 Task Standard: All corrective actions taken or in progress in accordance with DSR-1
 Required Materials: DSR-1 Rev 91
 General References: DSR-1 Rev 91
 Handouts: DSR-1 Rev 91
 Initiating Cue: Review the log entries taken on the 1900-0700 shift for approval
 Time Critical Task: NO
 Validation Time: 15 minutes

(Denote Critical Steps with an asterisk)

NOTE: Candidate may identify deficiencies in any order.

- * **Performance Step: 1** Determines CST level is out of spec low
- Standard:** Refer to TS 3.4.A.3. Determine TS minimum is met. Action to commence filling. Document by circling reading and informing SM (Any step of this JPM)
- Comment:**
-
- * **Performance Step: 2** Determines Containment Average Air temperature is out of spec high
- Standard:** Refers to TS 3.6.C and commence action to restore
Starts Containment FCU or raise service water flow
- Comment:**
-
- * **Performance Step: 3** Determines 21 SI Accumulator pressure is out of spec low
- Standard:** Refers to TS 3.3.A and commences action to restore pressure
Enters the action statement of TS 3.3.A
- Comment:** **NOTE: Containment Air Temperature and CST level are out of spec but not inoperable per TS. 21 Accumulator is inoperable per TS**
-
- Terminating Cue:** When log review is complete, the evaluation for this JPM is complete.

Job Performance Measure No.: IP2 2003 NRC A1b SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: The surveillances required by DSR-1 are complete for 0700

INITIATING CUE: Review the log entries taken on the 1900-0700 shift for approval

DSR-1 Remarks

- 1) Load Limit 1 in service ... LL's < Gov. oil pressure IP2-02-02590
- 2) Local RWST level not taken per SM—Safety concern
- 3) PI-936C, 23 ACCUM PRESS, CR#200300134, WO#03-10344
- 4) R-40 IP2-02-56719
- 5) R-48 O/S - T.O. 16586
- 6) R-53 – Does Not trip on low flow CR#IP2-2003-00173
- 7) R-55A – Does Not trip on low flow WRT#IP2-03-10406
- 8) R-55B- I&C 6 month PM.
- 9) R-55C – Does Not trip on low flow WRT#IP2-03-10406
- 10) R-55D – Does Not trip on low flow WRT#IP2-03-10406
- 11) R-59 O/S - Flange Leak Tag Out #2-02-6-00601
- 12) FSB charcoal hours WRT # IP2-02-02470
- 13) HSB 22 out of service Tag Out 2002-N-16406
- 14) Sequence of events CRs written. 2002-08363, 08164, 05966 & 06909

Facility: Indian Point Unit 2 Task No.: N/A

Task Title: Review (For Approval) A Completed Surveillance JPM No.: 2003 NRC A2 SRO

K/A Reference: 2.2.12 (3.4)

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: The Plant is at 100% power. All equipment in service.
PT-Q26A, 21 Service Water Pump Train Operational Test, was performed on your shift.

Task Standard: Deficiency identified and TS action

Required Materials: PT-Q26A Rev 9

General References: PT-Q26A Rev 9

Handouts: PT-Q26A Rev 9

Initiating Cue: You have been directed by the Shift Manager to perform calculations per section 7.4 and acceptance criteria review and approval per section 10.0 of PT-Q26A

Time Critical Task: No

Validation Time: 15 minutes

(Denote Critical Steps with an asterisk)

Performance Step: 1 Calculates total pump head
Standard: Determines head is approximately 275 feet by adding discharge pressure in feet with calculated value of suction pressure in feet

Comment:

* **Performance Step: 2** Determines acceptance criteria for total head is not met
Standard: Section 10.3; 300.5 – 355.4 is acceptable surveillance value.
Greater than 307 for alert range criteria

Comment:

* **Performance Step: 3** Determines action required
Standard: Step 10.6 requires action for surveillance failure – 21 SWP
 o Notify SM
 o Initiate a CR

Comment:

Terminating Cue: When the candidate has completed the acceptance criteria determination, the evaluation for this JPM is complete

Job Performance Measure No.: IP2 2003 NRC A2 SRO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: The Plant is at 100% power. All equipment in service.

PT-Q26A, 21 Service Water Pump Train Operational Test, was performed on your shift.

INITIATING CUE: You have been directed by the Shift Manager to perform calculations per section 7.4 and acceptance criteria review and approval per section 10.0 of PT-Q26A

Facility: Indian Point Unit 2 Task No.: N/A
 Task Title: 2003 NRC ADMIN A3 SRO JPM No.: N/A
 K/A Reference: 2.3.2 (2.9)
 2.3.4 (3.1)

Examinee:

NRC Examiner:

Facility Evaluator:

Date:

Method of testing:

Simulated Performance: _____ Actual Performance: _____
 Classroom Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: N/A

Task Standard: Two Questions answered at least 80% Correctly

Required Materials: E-Plan

General References: E-Plan
OASL 15.26

Handouts: NONE

Initiating Cue: N/A

Time Critical Task: NO

Validation Time: 10 Minutes

ANSWER KEY**NRC SRO ADMIN A.3 QUESTION 1 (Reference allowed)**

You are the Shift Manager.

An Alert has been declared at Indian Point due to a Steam Generator Tube Rupture.

Elevated radiation levels exist throughout the secondary plant.

An EOP attachment will be performed by an NPO to minimize secondary system contamination.

What are the restrictions on his allowable dose to perform this task?

ANSWER:

≤ 5 Rem TEDE if possible, (50%) with an extension to 10 Rem possible to protect property (50%)

REFERENCE:

E-Plan Part 2 section K

ANSWER KEY**NRC SRO ADMIN A.3 QUESTION 2 (CLOSED Reference)**

You are the Shift Manager.

A normally locked manual isolation valve in the Excess Letdown Heat Exchanger discharge line in a High Radiation Area was repositioned by an operator that received 65 millirem. The valve requires independent verification of position.

What are the requirements for independently verifying the position of this valve? Explain your answer.

ANSWER:

The Shift Manager may waive requirements for Independent Verification of this valve. (40%)

Alternate verification techniques may be used. (40%)

- Remote position indicators (5%)
- Use of process parameters (flow, pressure) (5%)
- Valve stem observation (5%)
- Functional mechanical position indicators (5%)

REFERENCE:

OASL 15.26 Attachment 1

NRC SRO ADMIN QUESTION 1**(Open Reference)**

You are the Shift Manager.

An Alert has been declared at Indian Point due to a Steam Generator Tube Rupture.

Elevated radiation levels exist throughout the secondary plant.

An EOP attachment will be performed by an NPO to minimize secondary system contamination.

What are the restrictions on his allowable dose to perform this task?

NRC SRO ADMIN QUESTION 2**(Closed Reference)**

You are the Shift Manager.

A normally locked manual isolation valve in the Excess Letdown Heat Exchanger discharge line in a High Radiation Area was repositioned by an operator that received 65 millirem. The valve requires independent verification of position.

What are the requirements for independently verifying the position of this valve? Explain your answer.

Job Performance Measure No.: IP2 SRO ADMIN A3 QUESTIONS

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

ATTACHMENT 1
COMPONENT STATUS CONTROL AND POSITION VERIFICATION

(Page 5 of 6)

1 INDEPENDENT VERIFICATION

1.1 For each COL that has an Attachment A. PERFORM the following:

- 1.1.1 PERFORM the independent verification and document completion in the applicable space on Attachment A.
- 1.1.1 Upon completion of independent verification, "as found" position SHALL be compared to the "required" positions by the SM OR his designee.
- 1.1.1 Discrepancies SHALL be listed on the comments/exceptions page AND resolved.

1.1 For each COL that has second verifier blank next to the initial verifier, PERFORM the following:

- 1.1.1 PERFORM the independent verification and document completion in the applicable space.
- 1.1.1 IF any discrepancies are noted, CONTACT the FSS for resolution.

1.1 A independent verification requires the following conditions:

- The independent verification SHALL be performed by someone different from the individual who performed the initial verification.
- The independent verifier SHALL use Attachment(s) provided at the end of the COL being verified.

EXCEPTIONS:

- Special Throttled valves with locking devices where the throttled position has been set by an approved test. Flow observation SHALL be observed independently.
- When required to perform a independent verification by Technical Specifications or NP procedure, the Section 1 requirements SHALL be followed. The requirements apply to any required calculations, sampling and to the identification of required equipment configuration.
- Independent verification may be waived by the Shift Manager if the component to be verified is located within a HI RAD AREA.

Facility: Indian Point Unit 2 Task No.: N/A
 Task Title: Perform Event Classification JPM No.: 2003 NRC A4 SRO S1
 K/A Reference: 2.4.41 (4.1)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X
 Classroom _____ Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: An event has occurred requiring Emergency classification

Task Standard: Classification is correctly made for the event completed

Required Materials: Event Classification Guide

General References: Event Classification Guide

Handouts: Event Classification Guide

Initiating Cue: Classify the event just completed

Time Critical Task: YES

Validation Time: 15 Minutes

(Denote Critical Steps with an asterisk)

* **Performance Step: 1** Classify the Event in accordance with the event classification guide

Standard: Classification is a SITR AREA EMERGENCY, Criteria 1.3.1

Comment:

Terminating Cue: When event classification has been made, the evaluation for this JPM is complete

Job Performance Measure No.: 2003 NRC A4 SRO S1

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: An event has occurred requiring Emergency classification

INITIATING CUE: Classify the event just completed

Facility: Indian Point Unit 2 Task No.: N/A

Task Title: Perform Event Classification JPM No.: 2003 NRC A4 SRO S2

K/A Reference: 2.4.41 (4.1)

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom _____ Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: An event has occurred requiring Emergency classification

Task Standard: Classification is correctly made for the event completed

Required Materials: Event Classification Guide

General References: Event Classification Guide

Handouts: Event Classification Guide

Initiating Cue: Classify the event just completed

Time Critical Task: YES

Validation Time: 15 Minutes

(Denote Critical Steps with an asterisk)

* **Performance Step: 1** Classify the Event in accordance with the event classification guide

Standard: Classification is a SITE AREA EMERGENCY, Criteria 1.1.2

Comment:

Terminating Cue: When event classification has been made, the evaluation for this JPM is complete

Job Performance Measure No.: 2003 NRC A4 SRO S2

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: An event has occurred requiring Emergency classification

INITIATING CUE: Classify the event just completed

Facility: Indian Point Unit 2 Task No.: N/A

Task Title: Perform Event Classification JPM No.: 2003 NRC A4 SRO S3

K/A Reference: 2.4.41 (4.1)

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom _____ Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: An event has occurred requiring Emergency classification

Task Standard: Classification is correctly made for the event completed

Required Materials: Event Classification Guide

General References: Event Classification Guide

Handouts: Event Classification Guide

Initiating Cue: Classify the event just completed

Time Critical Task: YES

Validation Time: 15 Minutes

(Denote Critical Steps with an asterisk)

* **Performance Step: 1** Classify the Event in accordance with the event classification guide

Standard: Classification is an ALERT, Criteria 3.1.2

Comment:

Terminating Cue: When event classification has been made, the evaluation for this JPM is complete

Job Performance Measure No.: 2003 NRC A4 SRO S3

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: An event has occurred requiring Emergency classification

INITIATING CUE: Classify the event just completed

Facility: <u>Indian Point 2</u>		Date of Examination: 3/10/2003	
Examination Level: RO		Operating Test Number: 1	
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions	
A.1a	Conduct of Operations	2.1.7	Ability to evaluate plant performance and make operational judgments based on operating characteristics, reactor behavior, and instrument interpretation. (3.7/4.4) JPM: Perform QPTR Calculation
A.1b	Conduct of Operations	2.1.18	Ability to make accurate, clear, and concise logs, records, status boards, and reports. (2.9/3.0) JPM: Perform a set of Control Room logs
A.2	Equipment Control	2.2.12	Knowledge of surveillance procedures. (3.0/3.4) JPM: Perform the RCS Leak Rate surveillance
A.3	Radiation Exposure Control	2.3.2	Knowledge of facility ALARA program. (2.5/2.9) JPM: Determine appropriate RWP and take action for High Area Radiation alarm
A.4	Emergency Plan	2.4.43	Knowledge of RO responsibilities in E-Plan implementation. (3.3/3.1) Question: Duties of operations department personnel when site accountability is required
		2.4.29	Knowledge of the Emergency Plan. (2.6/4.0) Question: Emergency Response Facilities activated in a Site Area Emergency

Facility: Indian Point Unit 2 Task No.: N/A
 Task Title: Perform A QPTR Calculation JPM No.: 2003 NRC A1a RO
 K/A Reference: 039 A2.01 (3.2)

Examinee: _____ NRC Examiner: *B. Wick*

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance: _____ Actual Performance: X
 Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: The plant is at 100% power.

NIS power range channel N-41 is out of service.

Task Standard: Determines QPTR outside of TS limits and inform CRS/SM

Required Materials: SOP-15.3 Rev 16
 DSR 4B
 Calculator

General References: SOP-15.3 Rev 16
 DSR-4B

Handouts: Partially completed DSR-4B

Initiating Cue: The Shift Manager has directed you to calculate QPTR manually using the given detector currents in accordance with the appropriate procedure

Time Critical Task: NO

Validation Time: 20 Minutes

(Denote Critical Steps with an asterisk)

Note: The purpose of this JPM is to have the candidate calculate QPTR and to correctly initiate action. The candidate will be provided a DSR-4B with upper and lower NIS detector currents already filled out.

Performance Step: 1 Obtain SOP-15.3
Standard: Obtains procedure

Comment: **Cue: Hand candidate a copy of partially filled out DSR-4B**

Performance Step: 2 Record top and bottom detector currents
Standard: Refers to DSR-4B for currents

Comment:

Performance Step: 3 Record date, time, and average reactor power
Standard: Records on DSR-4B

Comment:

* **Performance Step: 4** Divide each detector current output by corresponding normalization factor
Standard: Locates normalization factors and divides. Will only use 3 detectors, so denominator will be 3

Comment:

* **Performance Step: 5** Calculate average normalized ratio for top and bottom detectors
Standard: Performs calculation

Comment:

- * **Performance Step: 6** Calculate Quadrant Power Tilt for top and bottom detectors
Standard: Performs calculation

Comment:

- Performance Step: 7** Record Highest Quadrant Power Tilt and appropriate signatures
Standard: Records and signs DSR-4B

Comment:

- Performance Step: 8** Document results

Standard:

Enters data on DSR-1

Comment:

Cue: DSR-1 entry made be made later

- * **Performance Step: 9** Determine QPTR is greater than 1.02. Inform CRS/SM
Standard: Refer to procedure and determine that QPTR >1.02. Inform supervision

Comment:

- Terminating Cue:** When the candidate has determined QPTR and notified CRS/SM, the evaluation for this JPM is complete

Job Performance Measure No.: IP2 2003 NRC A1a RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: The plant is at 100% power.

 NIS power range channel N-41 is out of service

INITIATING CUE: The Shift manager has directed you to calculate QPTR manually
 using the given detector currents in accordance with the
 appropriate procedure

HANDOUT

UNIT TWO QUADRANT POWER TILT CALCULATION SHEET

DSR-4B

Rev. 73
(QT-16-6)

Previous SNSC #2545 11/5/98

DATE: TODAY

SNSC REVIEW DATE: 1/13/03

TIME: now

APPROVED (RE) DATE: 1/13/03

AVE REACTOR PWR: 100.0

APPROVED DATE: 1/13/03 USING DETECTOR OUTPUT CURRENT

* Current QT number and Normalization Factors provided by Reactor Engineer.

1. Determine normalized ratios by dividing indicated detector current by normalization factor as follows:

Channel	Det Current	Nor Ratio	Channel	Det Current	Nor Ratio
41 Top = 41T =	<u>NA</u>	<u>114.6 = NA</u>	41 Bottom = 41B =	<u>NA</u>	<u>112.6 = NA</u>
42 Top = 42T =	<u>87.0</u>	<u>88.3 =</u>	42 Bottom = 42B =	<u>111.1</u>	<u>111.8 =</u>
43 Top = 43T =	<u>104.1</u>	<u>108.9 =</u>	43 Bottom = 43B =	<u>118.1</u>	<u>118.9 =</u>
44 Top = 44T =	<u>166.9</u>	<u>105.9 =</u>	44 Bottom = 44B =	<u>117.0</u>	<u>118.3 =</u>

2. Determine the average normalized ratio for the top and bottom.

Average Normalized Ratio Top = ANRT = $\frac{41T + 42T + 43T + 44T}{4} =$ _____

Average Normalized Ratio Bottom = ANRB = $\frac{41B + 42B + 43B + 44B}{4} =$ _____

3. Determine The quadrant power tilt ratio for the top and bottom by dividing the highest normalized power ratio for the top and bottom respectively by their respective average normalized ratio.

Quadrant Power Tilt Top = QPTT = $\frac{\text{Highest value of 41T, 42T, 43T, or 44T}}{\text{ANRT}}$

QPTT = $\frac{\text{Value} = \text{_____}}{\text{ANRT} = \text{_____}} =$ _____

Quadrant Power Tilt Bottom = QPTB = $\frac{\text{Highest value of 41B, 42B, 43B, or 44B}}{\text{ANRB}}$

QPTB = $\frac{\text{Value} = \text{_____}}{\text{ANRB} = \text{_____}} =$ _____

4. The higher of the two quadrant power tilts should be less than or equal to the Technical Specification Limit of 1.0200.

Enter the Higher QPT (Top or Bottom) = $\frac{\text{_____}}{\text{Technical Specification Limit} = 1.0200}$

NOTES:

1. If the quadrant power tilt exceeds the Tech. Spec. limits, the SM, OM, RE and GM-NPG shall be informed ASAP.
2. If one detector is out of service, the three in service detectors will be used to compute the average normalized ratios (ensure denominators in step 2 are changed from 4 to 3).

RO: _____ SM: _____

ANSWER KEY

UNIT TWO QUADRANT POWER TILT CALCULATION SHEET

DSR-4B

Rev. 73
(QT-16-6)

Previous SNSC #2545 11/5/98

SNSC REVIEW DATE 1/13/03

APPROVED (RE) DATE 1-13-03

APPROVED DATE 1-13-03

DATE: Today

TIME: now

AVE REACTOR PWR: 100.0

USING DETECTOR OUTPUT CURRENT

* Current QT number and Normalization Factors provided by Reactor Engineer.

1. Determine normalized ratios by dividing indicated detector current by normalization factor as follows:

Channel	Det Current	Nor Ratio	Channel	Det Current	Nor Ratio
41 Top = 41T = <u>NA</u>	<u>NA</u>	<u>114.6 = NA</u>	41 Bottom = 41B = <u>NA</u>	<u>NA</u>	<u>112.6 = NA</u>
42 Top = 42T = <u>87.0</u>	<u>87.0</u>	<u>114.6 = 0.9853</u>	42 Bottom = 42B = <u>111.1</u>	<u>111.1</u>	<u>111.8 = 0.9937</u>
43 Top = 43T = <u>104.1</u>	<u>104.1</u>	<u>114.6 = 0.9559</u>	43 Bottom = 43B = <u>118.1</u>	<u>118.1</u>	<u>118.9 = 0.9933</u>
44 Top = 44T = <u>106.9</u>	<u>106.9</u>	<u>114.6 = 1.0094</u>	44 Bottom = 44B = <u>117.0</u>	<u>117.0</u>	<u>118.3 = 0.9890</u>

2. Determine the average normalized ratio for the top and bottom.

Average Normalized Ratio Top = ANRT = $\frac{41T + 42T + 43T + 44T}{4} = \frac{0 + 87.0 + 104.1 + 106.9}{4} = 0.9835$

Average Normalized Ratio Bottom = ANRB = $\frac{41B + 42B + 43B + 44B}{4} = \frac{0 + 111.1 + 118.1 + 117.0}{4} = 0.9920$

3. Determine The quadrant power tilt ratio for the top and bottom by dividing the highest normalized power ratio for the top and bottom respectively by their respective average normalized ratio.

Quadrant Power Tilt Top = QPTT = $\frac{\text{Highest value of 41T, 42T, 43T, or 44T}}{\text{ANRT}} = \frac{1.0094}{0.9835} = 1.0263$

Quadrant Power Tilt Bottom = QPTB = $\frac{\text{Highest value of 41B, 42B, 43B, or 44B}}{\text{ANRB}} = \frac{0.9937}{0.9920} = 1.0017$

4. The higher of the two quadrant power tilts should be less than or equal to the Technical Specification Limit of 1.0200.

Enter the Higher QPT(Top or Bottom) = 1.0263
 Technical Specification Limit = 1.0200

NOTES:

1. If the quadrant power tilt exceeds the Tech. Spec. limits, the SM, OM, RE and GM-NPG shall be informed ASAP.
2. If one detector is out of service, the three in service detectors will be used to compute the average normalized ratios (ensure denominators in step 2 are changed from 4 to 3).

RO: _____ SM: _____

Facility: Indian Point Unit 2 Task No.: N/A
Task Title: Perform Control Room Log Entries JPM No.: 2003 NRC A1b RO
K/A Reference: 2.1.18 (3.0)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X
Classroom _____ Simulator X Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: You are on shift prior to 0700. DSR-1 log entries are partially completed.

Task Standard: All corrective actions taken or in progress in accordance with DSR-1

Required Materials: DSR-1 Rev 91

General References: DSR-1 Rev 91

Handouts: Partially completed DSR-1 Rev 91

Initiating Cue: Perform the remainder of the log entries taken on the 1900-0700 shift for DSR-1

Time Critical Task: NO

Validation Time: 15 minutes

(Denote Critical Steps with an asterisk)

NOTE: Candidate may identify deficiencies in any order.

- * **Performance Step: 1** Determines CST level is out of spec low
Standard: Circle reading and enter comment
 Document by circling reading and informing SM

Comment:
- * **Performance Step: 2** Determines Containment Average Air temperature is out of spec high
Standard: Circles reading and enters comment. Inform CRS/SM

Comment:
- * **Performance Step: 3** Determines 21 SI Accumulator pressure is out of spec low
Standard: Circles reading and enters comment. Informs CRS/SM

Comment: **NOTE: Containment Air Temperature and CST level are out of spec but not inoperable per TS. 21 Accumulator is inoperable per TS**
- Terminating Cue:** When logs are complete, the evaluation for this JPM is complete.

Job Performance Measure No.: IP2 2003 NRC A1b RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: You are on shift prior to 0700. DSR-1 log entries are partially completed

INITIATING CUE: Perform the remainder of the log entries taken on the 1900-0700 shift for DSR-1

Facility: Indian Point Unit 2 Task No.: N/A
 Task Title: Perform the RCS Leak Rate Surveillance JPM No.: 2003 NRC A2 RO
 K/A Reference: 2.2.12 (3.0)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X
 Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: A manual RCS leak rate calculation was started 4 hours ago in accordance with SOP-1.7.

Task Standard: RCS leak rate is calculated correctly within +/- 0.1 GPM

Required Materials: SOP-1.7
 Calculator
 Steam Tables

General References: SOP-1.7

Handouts: SOP1.7 and completed attachment 1

Initiating Cue: Using the final values below, manually calculate RCS leak rate in accordance with SOP-1.7, section 4.2.2.1, RCS Inventory Balance.

Time Critical Task: NO

Validation Time: 20 Minutes

(Denote Critical Steps with an asterisk)

Note: Hand candidate attachment 1 with initial and final data

Performance Step: 1 Transfer data to attachment 2
Standard: Refer to attachment 1 and place data in appropriate blocks on attachment 2

Comment:

Performance Step: 2 Calculate total surveillance period time
Standard: Calculates 240 minutes

Comment:

Performance Step: 3 Calculate total volume diverted
Standard: Calculates zero gallons

Comment:

Performance Step: 4 Determine total Boric Acid and Primary Water makeup from totalizers
Standard: Calculates 34 gallons boric acid, 426 gallons primary water

Comment:

* **Performance Step: 5** Calculate total volume diverted from total makeup
Standard: Calculates 460 gallons

Comment:

Performance Step: 6 Calculate change in VCT volume and convert to gallons
Standard: Calculates 38.6 gallons

Comment:

-
- * **Performance Step: 7** Sum change in VCT volume and net makeup
Standard: Calculates 498.6 gallons

Comment:
- Performance Step: 8** Calculate change in RCS mass due to change in pressurizer level
Standard: Calculates 519.9 lbm

Comment:
- Performance Step: 9** Calculate the change in RCS mass due to Tave
Standard: Calculates (-) 784 lbm

Comment:
- Performance Step: 10** Sum the mass changes due to level and temperature changes
Standard: Calculates (-) 264.1 lbm and converts to (-) 31.95 gallons

Comment:
- * **Performance Step: 11** Add total volumes
Standard: Calculates 466.7 gallons

Comment:
- * **Performance Step: 12** Divide total elapsed time
Standard: Total value of leakage is 1.94 gpm
(Candidate should arrive at 1.84 to 2.04)

Comment:
- * **Performance Step: 13** Subtract identified leakage from last safety evaluation
Standard: Subtracts 1.7 gpm to arrive at 0.24 GPM total unidentified leakage

Comment:

Performance Step: 14 Record the total unidentified leak rate on attachment 5

Standard: Locates attachment 5

Comment:

Terminating Cue: When RCS leak rate calculation is complete, the evaluation for this JPM is complete

Job Performance Measure No.: IP2 2003 NRC A2 RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: A manual RCS leak rate calculation was started 4 hours ago in accordance with SOP-1.7.

INITIATING CUE: Using the final values below, manually calculate RCS leak rate in accordance with SOP-1.7, section 4.2.2.1, RCS Inventory Balance.

Final Values:

- Provided on Attachment 1 (provided)
- Last Identified leak rate from safety evaluation 3 days ago is 1.7 GPM

REACTOR COOLANT SYSTEM LEAKAGE SURVEILLANCE

SOP 1.7
Rev. 35 N-1**ATTACHMENT 1**
LEAKAGE SURVEILLANCE DATA SHEET
(PAGE 1 of 2)DATE TODAY

PARAMETER	PLANT COMPUTER SYSTEM	INDICATION	PREVIOUS (Initial) DATA ¹	Present (Final) DATA
Time	Clock	Panel 1FAF	T TO	T + 4 HOURS
RCS Activity ($\mu\text{Ci/cc}$)		Sample	2.2E^{-6}	2.2E^{-6}
Kr88 Activity ($\mu\text{Ci/cc}$)		Sample	1.6E^{-7}	1.6E^{-7}
R-41 Activity ($\mu\text{Ci/cc}$)			3.1E^{-6}	3.1E^{-6}
R-41 Background ($\mu\text{Ci/cc}$)			4.2E^{-4}	4.2E^{-4}
BA Integrator	-	Panel FBF	66	100
PW Integrator	-	Panel FBF	24	450
VC Sump Flow Integrator	-	Panel SFF	006626	006626
VCT Level	L0112	LI-112	26	24
Average PZR Level ²	U0483	-	45	44
Ch.1 PZR Level ²	L0480	LI-459	45	44
Ch.2 PZR Level ²	L0481	LI-460	45	44
Ch.3 PZR Level ²	L0482	LI-461	45	44
VC Sump Level	L6055	Panel SBF-1	40' 0"	40' 0"
T _{Ave}	U0484 or T0499 or RCSAVETA (SAS)	Panel FCF or FDF	559	558
RCS Pressure	U0482 or P0499	PT-455,456 457,474	2235	2235
Weir Level	21 FCU	-	0.0"	0.0"
	22 FCU	-	0.0"	0.0"
	23 FCU	-	-0.1"	-0.1"
	24 FCU	-	0.0"	0.0"
	25 FCU	-	0.0"	0.0"
VC Dew Pt.	21 FCU	-	70.7°F	70.7°F
	22 FCU	-	70.7°F	70.7°F

ATTACHMENT 1
LEAKAGE SURVEILLANCE DATA SHEET
(PAGE 2 of 2)

DATE Today

PARAMETER	PLANT COMPUTER SYSTEM	INDICATION	PREVIOUS (Initial) DATA ¹	Present (Final) DATA
23 FCU	-	Recorder	70.7 °F	70.7 °F
24 FCU	-	Recorder	70.7 °F	70.7 °F
25 FCU	-	Recorder	70.7 °F	70.7 °F
BA makeup to RWST	-	CRS Log	0	0
PW makeup to RWST	-	CRS Log	0	0
Let Down Integrator ²	-	Panel SFF	0	0
RHR Valve Leakage	-	SOP 1.7 Att 6	0	0
Known Leakage other than RCS in VC	-	SOP 1.7 Att 6	0	0
Identified RCS Leakage	-	SOP 1.7 Att 6	1.7 GPM	1.7 GPM
VC Sump Temperature	-	WDS Panel	106 °F	106 °F
VC Sump Boron	-	Chemist Sample ³	NA	NA
VC Sump Sodium Chloride	-	Chemist Sample ³	NA	NA
VC Sump Molybdenum	-	Chemist Sample ³	NA	NA
VC Sump Ph @ 25°C	-	Chemist Sample ³	NA	NA
VC Sump Activity	-	Chemist Sample ³	NA	NA
VC Sump Conductivity	-	Chemist Sample ³	NA	NA

¹ Not Required if using PC
² ZERO the Letdown Integrator after recording data by pressing the Control Reset button.
³ If requested by CRS per step 4.2.2.(2)(j)

ATTACHMENT 2
MANUAL RCS WATER INVENTORY BALANCE WORK SHEET
(PAGE 1 of 3)

DATE _____

CAUTION

Use this attachment **ONLY** at Normal, Full Power Temperature and Pressure of 559°F, and 2235 psig.

RCS Water Inventory Balance (Section 4.2.2)

() indicates mathematical sign must be observed.

A. Final Time _____ :
 Initial Time - _____ :
 Elapsed Time _____ : = _____ Minutes
 (A)

B. Make Up to RWST and Letdown diversion to CVCS HUT.

BA MU from CRS log _____
 PW MU from CRS log + _____
 RWST MU _____
 (b1)

LD Integrator _____ gal
 (b2)

Total Divert _____ gal + _____ gal = _____ gal
 (b1) (b2) (B)

C. Total RCS Make up volume

Final BA Counter _____
 Initial BA _____
 Difference _____ gal
 (c1)

Final PW Counter _____
 Initial PW Counter _____
 Difference _____ gal
 (c2)

Total Makeup _____ gal + _____ gal = _____ gal
 (c1) (c2) (C)

ANSWER KEY

REACTOR COOLANT SYSTEM LEAKAGE SURVEILLANCE

SOP 1.7
Rev. 35 N-1

ATTACHMENT 2 MANUAL RCS WATER INVENTORY BALANCE WORK SHEET (PAGE 1 of 3)

DATE TODAY

CAUTION

Use this attachment **ONLY** at Normal, Full Power Temperature and Pressure of 559°F, and 2235 psig.

RCS Water Inventory Balance (Section 4.2.2)

() indicates mathematical sign must be observed.

A. Final Time $\frac{T:41}{T:0}$
Initial Time - $\frac{T:0}{4:00}$
Elapsed Time = $\frac{240}{(A)}$ Minutes

B. Make Up to RWST and Letdown diversion to CVCS HUT.

BA MU from CRS log $\frac{0}{0}$
PW MU from CRS log + $\frac{0}{(b1)}$
RWST MU

LD Integrator $\frac{0}{(b2)}$ gal

Total Divert $\frac{0}{(b1)}$ gal + $\frac{0}{(b2)}$ gal = $\frac{0}{(B)}$ gal

C. Total RCS Make up volume

Final BA Counter $\frac{100}{66}$
Initial BA
Difference $\frac{34}{(c1)}$ gal

Final PW Counter $\frac{450}{24}$
Initial PW Counter
Difference $\frac{426}{(c2)}$ gal

Total Makeup $\frac{34}{(c1)}$ gal + $\frac{426}{(c2)}$ gal = $\frac{460}{(C)}$ gal

ATTACHMENT 2
MANUAL RCS WATER INVENTORY BALANCE WORK SHEET
(PAGE 2 of 3)

DATE TODAY

D. Net MU - Divert $\frac{460}{(C)}$ gal - $\frac{0}{(B)}$ gal = $(+) \frac{460}{(D)}$ gal

E. Change in VCT volume.

Initial VCT Level $\frac{26}{}$ %
Final VCT Level $\frac{24}{}$ %
Difference $(+) \frac{2}{}$ % X $\frac{19.3 \text{ gal} / \%}{}$ = $(+) \frac{38.6}{(E)}$ gal

F. Net VCT plus MU/Divert $(+) \frac{460}{(D)}$ gal $(+) \frac{38.6}{(E)}$ gal = $(+) \frac{498.6}{(F)}$ gal

G. Change in RCS mass due to change in PZR level

Initial Pzr Level $\frac{45}{}$ %
Final Pzr Level $- \frac{44}{}$ %
Difference $(+) \frac{1}{}$ % X $\frac{126.2 \text{ gal} / \%}{}$ = $(+) \frac{126.2}{(g1)}$ gal

Change in Pzr Mass $(+) \frac{126.2}{(g1)}$ gal X $\frac{4.12 \text{ lb} / \text{gal}}{}$ = $(+) \frac{519.94}{(G)}$ lbm

H. Change in RCS mass due to T_{ave}

Final T_{ave} $\frac{558}{}$ F°
Initial T_{ave} $- \frac{559}{}$ F°
Difference $(-) \frac{1}{}$ F° X $\frac{784 \text{ lb} / \text{F}^\circ}{}$ = $(-) \frac{784}{(H)}$ lbm

I. Total change in RCS Mass

(Pzr Level plus T_{ave}) $(+) \frac{519.94}{(G)}$ lbm $(-) \frac{784}{(H)}$ lbm = $(-) \frac{264.1}{(I)}$ lbm

J. Total change in RCS Volume

(Referenced to VCT temp.) $(-) \frac{264.1}{(I)}$ lbm X $\frac{0.121 \text{ gal} / \text{lb}}{}$ = $(-) \frac{31.95}{(J)}$ gal

ATTACHMENT 2
MANUAL RCS WATER INVENTORY BALANCE WORK SHEET
(PAGE 3 of 3)

DATE TODAY

K. Change in System Volume

(RCS plus VCT) (+) $\frac{498.6}{(F)}$ gal (-) $\frac{31.95}{(J)}$ gal = (+) $\frac{466.7}{(K)}$ gal

L. Total System leakage

$\frac{466.7}{(K)}$ gal ÷ $\frac{240}{(A)}$ min = $\frac{1.94}{(L)}$ gpm

M. Previously Identified leakage (From last SE)

$\frac{1.7}{(M)}$ gpm

N. Unidentified Leakage

$\frac{1.94}{(L)}$ gpm - $\frac{1.7}{(M)}$ gpm = $\frac{0.24}{(N)}$ gpm

¹ A positive number indicates a net removal of mass from the system

Facility: Indian Point Unit 2 Task No.: N/A

Task Title: Determine Appropriate RWP And
Take Action For High Area
Radiation Alarm. JPM No.: 2003 NRC A3 RO

K/A Reference: 2.3.2 (2.5)

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance: _____ Actual Performance: X

Classroom _____ Simulator _____ Plant X

READ TO THE EXAMINEE

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

Initial Conditions: You have been directed to align City Water to the Charging Pumps

Task Standard: Correct RWP used to perform task and actions to minimize exposure are taken *-determine correct Survey map - 6 maps*

Required Materials: RWP - *ALARA*
Alarming dosimeter *-*

General References: Radiation Protection plan

Handouts: None

Initiating Cue: Enter the RCA using the correct RWP to perform the task

Time Critical Task: NO

Validation Time: 5 Minutes

(Denote Critical Steps with an asterisk)

NOTE: This JPM is intended to be performed in conjunction with the JPM performed in the RCA. Once the RWP is identified, suspend this JPM until the RCA task is complete, then continue with this JPM

- * **Performance Step: 1** Identify RWP required for RCA entry
Standard: Identifies correct RWP (032002 Task 1)

Comment: **NOTE: Suspend this task when RCA entry is made. When task is complete, cue the candidate that his/her alarming dosimeter is beeping**

- * **Performance Step: 2** Verify dosimeter alarm condition
Standard: Checks dosimeter to check dose and dose rate

Comment: **Cue: Inform candidate that dose rate indicates 200 mr/hour**

- * **Performance Step: 3** Leave the area. Contact HP
Standard: Leaves to a lower dose area. Contacts HP for guidance

Comment:

Terminating Cue: When the candidate leaves the area of high radiation and informs HP, the evaluation for this JPM is complete

Job Performance Measure No.: IP2 2003 NRC A3 RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____

INITIAL CONDITIONS: You have been directed to align City Water to the Charging Pumps

INITIATING CUE: Enter the RCA using the correct RWP to perform the task

Facility: Indian Point Unit 2 Task No.: N/A
Task Title: Emergency Plan Questions JPM No.: 2003 NRC A4 RO
K/A Reference: 2.4.29 (2.6)

Examinee: NRC Examiner:

Facility Evaluator: Date:

Method of testing:

Simulated Performance: _____ Actual Performance: X
Classroom X Simulator _____ Plant _____

READ TO THE EXAMINEE

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

Initial Conditions: N/A

Task Standard: Two questions answered 80% correctly

Required Materials: E-Plan Implementing Procedures

General References: E-Plan Implementing Procedures

Handouts: N/A

Initiating Cue: N/A

Time Critical Task: NO

Validation Time: 10 Minutes

ANSWER KEY**NRC RO ADMIN A.4 QUESTION 1 (NO Reference allowed)**

You are on shift as a spare RO, doing procedure walkdowns.

A Site Area Emergency has been declared at Indian Point. Site accountability is required.

Where are you required to report?

ANSWER:

The Central Control Room

REFERENCE:

IP-2001, Attachment 5.3

ANSWER KEY**NRC RO ADMIN A.4 QUESTION 2 (CLOSED Reference)**

A Site Area Emergency has been declared at Indian Point.

List 5 of the Emergency Response Facilities that are staffed as a result of this event.

ANSWER:

- Central Control Room (CCR)
- Technical Support Center (TSC)
- Operations Support Center (OSC)
- Emergency Operations Facility (EOF)
- Alternate EOF (AEOF)
- Joint News Center

20% each for a maximum of 100%

REFERENCE:

E-Plan

NRC RO ADMIN A4 QUESTION 1

(Closed Reference)

You are on shift as a spare RO, doing procedure walkdowns.

A Site Area Emergency has been declared at Indian Point. Site accountability is required.

Where are you required to report?

NRC RO ADMIN A4 QUESTION 2

(Closed Reference)

A Site Area Emergency has been declared at Indian Point.

List 5 of the Emergency Response Facilities that are staffed as a result of this event.

Job Performance Measure No.: IP2 2003 NRC A4 RO

Examinee's Name:

Date Performed:

Facility Evaluator:

Number of Attempts:

Time to Complete:

Question Documentation:

Question:

Response:

Result: SAT _____ UNSAT _____

Examiner's Signature: _____ Date: _____