Appendix C	JOB PERFORMANCE MEASURE	E Form ES-C-1 (R8, S1)
Facility: BVPS UNIT 1		Task No: 0481-006-03-013
Task Title: Shift Relief Ar	nd Turnover	JPM No: 2002 NRC A1a RO
K/A Reference: 2.1.3	(3.0)	
Examinee:	NRC	Examiner:
Facility Evaluator: N/A	Date:	<u> </u>
Method of testing:		
Simulated Performance:	Actua	I Performance X
Classroom:	Simulator: <u>X</u>	Plant:
READ TO THE EXAMINEE		
I will explain the initial conditi When you complete the task satisfied.	ions, which steps to simulate or disc successfully, the objective for this jo	uss, and provide initiating cues. b performance measure will be
Initial Conditions:	The Unit is operating at 100% powershift Reactor Operator. You have ju with the offgoing RO with the except board checklist. The IPC is out of s	ust completed relief turnover option of completing the control
Test Of endersh	400T 40.04 Control Deard Check	ist secondated and arrays reports

Task Standard: 10ST-48.3A, Control Board Checklist completed and errors reported.

Required Materials: None

General References: 10ST-48.3A, Control Board Checklist, Rev. 10

Handout: 10ST-48.3A (attached marked up copy)

Initiating Cue: In accordance with 1OST-48.3A, Control Board Checklist, perform a control board walkdown and report your results.

Time Critical Task: NO

Validation Time: 20 minutes

Page 2 of 7 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Shift Relief And Turnover

2002 NRC A1a RO

Simulator Setup Information

Setup: Initialize IC-94. Verify the following:

- 1QS-P-1A C/S in P-T-L
- MOV-1RC-537 override C/S in CLOSE (green light ON)
- Emerg Gen #1 Auto/Exercise C/S in EXERCISE

Page 3 of 7 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

Shift Relief And Turnover

2002 NRC A1a RO

(Denote Critical Steps with an asterisk)

Individual reports are not required for each section of the procedure. NOTE: The Candidate may review the entire checklist before reporting the results. Complete Initial Conditions section of procedure. **Performance Step 1:** Candidate initials Step IV.1 to begin performance of the OST. Standard: Comments: Verify the Containment Isolation Valves (Train 'A' and 'B') are in **Performance Step 2:** their required positions. Candidate verifies that all valves are in their required positions as Standard: listed in the OST Checklist. Comments: Verify ESF Pump Control Switches are in their required positions. **Performance Step 3:** Candidate identifies that 1QS-P-1A is not in the AUTO position Standard: as designated in the OST Checklist. Evaluator Note: If asked, inform the Candidate that the Plant Operator will investigate, and to continue with the OST checklist. Comments:

Ap	pendix C	Page 4 c PERFORMANCE IN		Form ES-C-1 (R8, S
<u>Sh</u>	ift Relief And Turnover			2002 NRC A1a R
*	Performance Step 4:	Verify ESF Valves are	e in their required p	oositions.
	Standard:	Candidate identifies t position as designate		
				at the Plant Operator will the OST checklist.
	Comments:			
*	Performance Step 5:	Verify Diesel Generat	ors are in their req	uired positions.
	Standard:	Candidate identifies the Switch is not in the Al Checklist.		a 1 Auto/Exercise Selecto esignated in the OST
		Evaluator Note:		e Candidate that the Pla stigate, and to continue cklist.
	Comments:			
*	Performance Step 6:	Assign a Deviation Nu	umber in the Shift (Check Block.
	Standard:	Candidate assigns a l deficiencies and reco Block.	Deviation Number rds the number in t	to each of the identified he Shift Check
	Comments:			

Appendix C	Page 5 of 7 PERFORMANCE INFORMATION	Form ES-C-1 (R8, S1)
Shift Relief And Turnover		2002 NRC A1a RO
* Performance Step 7	Consult Acceptance Critieria.	
Standard:	Candidate refers to Acceptance Criteria Manager of identified deficiencies for ac	
	CUE: The Unit Supervisor will review a deviations.	and disposition the
Comments:		

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**Terminating Cue:** The evaluation is complete when the Candidate reports the errors identified in the OST checklist.

| Appendix C                | Page 6 of 7<br>VERIFICATION OF COMPI | Form ES-C-1 (R8, S1) |
|---------------------------|--------------------------------------|----------------------|
| Shift Relief And Turnover |                                      | 2002 NRC A1a RO      |
|                           |                                      |                      |
| JPM No.:                  | 2002 NRC A1a RO                      |                      |
| Examinee's Name:          |                                      |                      |
| Examiner's Name:          |                                      |                      |
| Date performed:           |                                      |                      |
| Facility Evaluator:       |                                      |                      |
| Number of attempts:       |                                      |                      |
| Time to complete:         |                                      |                      |
| Question Documentation:   |                                      |                      |
| Question:                 |                                      |                      |
|                           |                                      |                      |
| Response:                 |                                      |                      |
|                           |                                      |                      |
| Result:                   | SAT                                  | UNSAT                |
|                           |                                      |                      |
| Examiner's Signature:     |                                      | Date:                |

| Appendix C                | Page 7 of 7<br>JPM CUE SHEET                                                                                                                           | Form ES-C-1 (R8, S1)                                         |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| Shift Relief And Turnover | · · · · · · · · · · · · · · · · · · ·                                                                                                                  | 2002 NRC A1a RO                                              |
| INITIAL CONDITIONS:       | The plant is operating at 100% powershift Reactor Operator. You have ju<br>with the offgoing RO with the except<br>board walkdown. The IPC is out of a | ist completed relief turnover tion of conducting the control |
| INITIATING CUE:           | In accordance with 1OST-48.3A, Co<br>a control board walkdown and repor                                                                                |                                                              |

| Appendix C               | JOB PERFORMAN                                   | CE MEASURE Form ES-C-1 (R8, S1)                                                                                                      |
|--------------------------|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Facility: BVPS UNIT 1    |                                                 | Task No: 1300-001-03-023                                                                                                             |
| Task Title: Shift Relief | And Turnover                                    | JPM No: 2002 NRC A1a SRC                                                                                                             |
| K/A Reference: 2.1.      | 3 (3.4)                                         |                                                                                                                                      |
| Examinee:                |                                                 | NRC Examiner:                                                                                                                        |
| Facility Evaluator: N/A  |                                                 | Date:                                                                                                                                |
| Method of testing:       |                                                 |                                                                                                                                      |
| Simulated Performance:   |                                                 | Actual Performance X                                                                                                                 |
| Classroom: <u>X</u>      | Simulator:                                      | X Plant:                                                                                                                             |
| READ TO THE EXAMINE      | E                                               |                                                                                                                                      |
|                          |                                                 | mulate or discuss, and provide initiating cues.<br>ctive for this job performance measure will be                                    |
| Initial Conditions:      | shift Unit Supervisor.                          | at 100% power. You are the oncoming day<br>The RO has completed shift relief turnover<br>Board Checklist. The IPC is out of service. |
| Task Standard:           | Verify the Control Boa<br>accordance with 1OS   | ard Checklist OST is correctly completed in ST-48.3A.                                                                                |
| Required Materials:      | None                                            |                                                                                                                                      |
| General References:      | 10ST-48.3A, Control                             | Board Checklist, Rev. 10                                                                                                             |
| Handout:                 | 1OST-48.3A (attached                            | d marked up copy)                                                                                                                    |
| Initiating Cue:          | As the Unit Superviso<br>Board Checklist for ac | or perform a review of 1OST-48.3A, Control cceptability and report your results.                                                     |
| Time Critical Task:      | NO                                              |                                                                                                                                      |
| Validation Time:         | 15 minutes                                      |                                                                                                                                      |

### Page 2 of 5 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Shift Relief and Turnover

2002 NRC A1a SRO

Simulator Setup Information

Setup: Initialize IC-94. Verify the following:

- IQS-P-1A C/S is in P-T-L
- MOV-1RC-537 override C/S in CLOSE (green light ON)
- Emerg Gen #1 Auto/Exercise C/S in EXERCISE

## Page 3 of 5 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

Shift Relief and Turnover

2002 NRC A1a SRO

(Denote Critical Steps with an asterisk)

|                     |                   | Evaluator Note:                                      | Provide the Candidate with a copy of 1OST-<br>48.3A, Control Board Checklist.                               |
|---------------------|-------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| * Performance Step: |                   | Reviews procedure                                    | for acceptability.                                                                                          |
|                     |                   | Evaluator Note:                                      | Candidate may refer to actual control board equipment positions to verify information in the OST Checklist. |
|                     | Standard:         | Candidate identifies                                 | the following errors:                                                                                       |
|                     |                   | <ul> <li>Item II.b [MOV-1<br/>Block.</li> </ul>      | RC-516] is not checked in the 08 - 16 Shift Check                                                           |
|                     |                   | <ul> <li>Item IV.2 [MOV-<br/>Check Block.</li> </ul> | 1RW-116A] is not checked in the 08 - 16 Shift                                                               |
|                     |                   |                                                      | not list Deviation Number #2 in the Shift Check<br>RC-537 being in the CLOSED position.                     |
|                     | Comments:         |                                                      |                                                                                                             |
|                     |                   |                                                      |                                                                                                             |
|                     |                   |                                                      |                                                                                                             |
|                     | Performance Step: | Refers to Acceptanc                                  | e Criteria to determine required action.                                                                    |
|                     | Standard:         | Candidate reports th that the Acceptance             | at the OST was not satisfactorily completed and Criteria is not met.                                        |
|                     |                   | CUE: The Shift Mai<br>deviations.                    | nager will review and disposition the identified                                                            |
|                     | Comments:         |                                                      |                                                                                                             |
|                     |                   |                                                      |                                                                                                             |
|                     | rminating Cue:    | The evaluation is cor                                | nplete when the Candidate reports the errors                                                                |

# Page 4 of 5 VERIFICATION OF COMPLETION

Form ES-C-1 (R8, S1)

## Shift Relief And Turnover

2002 NRC A1a SRO

| JPM No.:                | 2002 NRC A1a SRO |       |
|-------------------------|------------------|-------|
| Examinee's Name:        |                  |       |
| Examiner's Name:        |                  |       |
| Date performed:         |                  |       |
| Facility Evaluator:     |                  |       |
| Number of attempts:     |                  |       |
| Time to complete:       |                  |       |
| Question Documentation: |                  |       |
| Question:               |                  |       |
| Response:               |                  |       |
| Result:                 | SAT              | UNSAT |
|                         |                  |       |
| Examiner's Signature:   |                  | Date: |

| Appendix C                | Page 5 of 5<br>JPM CUE SHEET                                                                                           | Form ES-C-1 (R8, S1)          |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Shift Relief And Turnover |                                                                                                                        | 2002 NRC A1a SRO              |
| INITIAL CONDITIONS:       | The Unit is operating at 100% power.<br>shift Unit Supervisor. The RO has co<br>including the Control Board Checklist. | mpleted shift relief turnover |
| INITIATING CUE:           | As the Unit Supervisor perform a revie<br>Board Checklist for acceptability and r                                      |                               |

| Appendix C                                                                    | JOB PERFORMANCE MEASURE                                                                                                                                                | E Form ES-C-1 (R8, S1)                                             |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Facility: BVPS UNIT 1                                                         |                                                                                                                                                                        | Task No: 0011-006-01-013                                           |
| Task Title: Perform Shutdo                                                    | own Margin Calculation                                                                                                                                                 | JPM No: 2002 NRC A1b RO                                            |
| K/A Reference: 2.1.25                                                         | (2.8)                                                                                                                                                                  |                                                                    |
| Examinee:                                                                     | NRC                                                                                                                                                                    | Examiner:                                                          |
| Facility Evaluator: N/A                                                       | Date:                                                                                                                                                                  |                                                                    |
| Method of Testing:                                                            |                                                                                                                                                                        |                                                                    |
| Simulated Performance:                                                        | Actua                                                                                                                                                                  | Performance X                                                      |
| Classroom: X                                                                  | Simulator:                                                                                                                                                             | Plant:                                                             |
| READ TO THE EXAMINEE                                                          |                                                                                                                                                                        |                                                                    |
| I will explain the initial condit<br>When you complete the task<br>satisfied. | ions, which steps to simulate or discu<br>successfully, the objective for this jo                                                                                      | uss, and provide initiating cues.<br>b performance measure will be |
| Initial Conditions:                                                           | The Unit is at 100% power. All cont<br>Control rod "F10" is INOPERABLE (<br>Core age is 8,300 MWD/MTU with a<br>1200 ppm. RCS Tavg is stable at 5<br>From Tref is OFF. | (immovable and untrippable).<br>a boron concentration of 1200      |
| Task Standard:                                                                | Correctly calculates shutdown marg                                                                                                                                     | in in accordance with 1OST-49.                                     |
| Required Materials:                                                           | Calculator<br>Cycle 15 Curves CB-21, CB-24A, 24                                                                                                                        | 4B & 24C                                                           |
| General References:                                                           | 10ST-49.1, Shutdown Margin Calcu                                                                                                                                       | lation (Plant Critical), Rev. 6                                    |
| Handout:                                                                      | 1OST-49.1 (marked up copy attache                                                                                                                                      | ed)                                                                |
| Initiating Cue:                                                               | The Unit Supervisor directs you to p the shutdown margin and report you                                                                                                |                                                                    |
| Time Critical Task:                                                           | NO                                                                                                                                                                     |                                                                    |
| Validation Time:                                                              | 20 minutes                                                                                                                                                             |                                                                    |

# Page 2 of 6 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Perform Shutdown Margin Calculation

2002 NRC A1b RO

Simulator Setup Information

Setup: None required.

## Page 3 of 6 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

Perform Shutdown Margin Calculation

2002 NRC A1b RO

(Denote critical steps with an asterisk)

|                   | Evaluator Note:                     | Provide the Candidate with a copy of 1OST-<br>49.1, Cycle 15 Curves and a calculator.           |
|-------------------|-------------------------------------|-------------------------------------------------------------------------------------------------|
|                   |                                     | Allow the Candidate to complete the calculation<br>and then report the results.                 |
| Performance Step: | Enter Test Prepara                  | tion Data (Section VII.A).                                                                      |
| Standard:         |                                     | tep VII.A. 1 (plant in Mode 1, Tavg < 5°F<br>DFF) from information given in Initial Conditions. |
|                   | Candidate N/A's St                  | ep VII.A.2 (Mode 2 condition).                                                                  |
|                   | Candidate enters th                 | ne following information in Data Sheet 1:                                                       |
|                   | <ul> <li>Control Bank "D</li> </ul> | )" is at 225 steps (Step A.4).                                                                  |
|                   | <ul> <li>Reactor power i</li> </ul> | is 100% (Step A.5).                                                                             |
|                   | <ul> <li>Number of Imm</li> </ul>   | ovable or Untrippable Rods is 1 (Step A.6).                                                     |
|                   | Candidate N/A's ste                 | ep VII.A.7 (greater than 1 immovable rod).                                                      |

Comments:

| ppendix C               | Page 4                                                 | f of 6                                     | Form ES-C-1 (R8, S1)                 |
|-------------------------|--------------------------------------------------------|--------------------------------------------|--------------------------------------|
|                         | PERFORMANCE                                            | INFORMATION                                |                                      |
| Perform Shutdown Margin | Calculation                                            |                                            | 2002 NRC A1b RO                      |
| Performance Step:       | Calculate shutdowr                                     | n margin (Section VII.E                    | 3 & Data Sheet 1).                   |
|                         | Evaluator Note:                                        | Refer to Data Shee<br>the calculation is c | et 1 Answer Key to verify<br>orrect. |
| Standard:               | Candidate determin                                     | nes and enters the foll                    | owing data:                          |
|                         | ■ ARO TBW for 8,000 MWD/MTU = 7.016 %∆k/k (Step B.1.a) |                                            |                                      |
|                         | IRW = 0 pcm and 0 %∆k/k from CB-24A (Step B.1.b)       |                                            |                                      |
|                         | TBW minus IBW                                          | = 7.016 %∆k/k (Step I                      | 3.1.c)                               |
|                         | 90% Current TBV                                        | V = 6.314 %∆k/k (Ste <mark>p</mark>        | o B.1.d)                             |
|                         | ■ 90% TBW minus                                        | Stuck Rod Worth = 3.                       | 085 %∆k/k (Step B.3)                 |
|                         | RCS boron conce                                        | entration = 1200 ppm (                     | (Step B.4.a)                         |
|                         | Power Defect from                                      | n CB-21 = 1800 pcm                         | & 1.8 %∆k/k (Step B.4.b &            |
|                         | Power Defect + C<br>%∆k/k (Step B.4.c                  |                                            | band margin = 1.8 & 2.05             |
|                         | - Shutdown Marain                                      | = 1.035 %∆k/k (Step                        | P 5)                                 |

Terminating Cue:

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When the Candidate completes the shutdown margin calculation, the evaluation for this JPM is complete.

| Appendix C                  | Page 5 of 6<br>VERIFICATION OF COMPLETIC | Form ES-C-1 (R8, S1)<br>DN |
|-----------------------------|------------------------------------------|----------------------------|
| Perform Shutdown Margin     | Calculation                              | 2002 NRC A1b RO            |
|                             |                                          |                            |
| JPM No.:                    | 2002 NRC A1b RO                          |                            |
| Examinee's Name:            |                                          |                            |
| Examiner's Name:            |                                          |                            |
| Date performed:             |                                          |                            |
| Facility Evaluator:         |                                          |                            |
| Number of attempts:         |                                          |                            |
| Time to complete:           |                                          |                            |
| Question Documentation:     |                                          |                            |
| Question:                   |                                          |                            |
| Response:                   |                                          |                            |
| Result:                     | SAT UNS                                  | AT                         |
| Examiner's signature and da | ate <sup>.</sup>                         |                            |

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| Appendix C              | Page 6 of 6                                                                                                                                                            | Form ES-C-1 (R8, S1)                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
|                         | JPM CUE SHEET                                                                                                                                                          |                                                               |
| Perform Shutdown Margin | Calculation                                                                                                                                                            | 2002 NRC A1b RO                                               |
| INITIAL CONDITIONS:     | The Unit is at 100% power. All cont<br>Control rod "F10" is INOPERABLE (<br>Core age is 8,300 MWD/MTU with a<br>1200 ppm. RCS Tavg is stable at 5<br>From Tref is OFF. | (immovable and untrippable).<br>a boron concentration of 1200 |

**INITIATING CUE:** The Unit Supervisor directs you to perform 1OST-49.1 to calculate the shutdown margin and report your results.

| Appendix C                                                                 | JOB PERFORMANCE MEAS                                                          | SURE Form ES-C-1 (R8, S1)                                                                                           |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Facility: BVPS UNIT 1                                                      |                                                                               | Task No: 1340-007-03-023                                                                                            |
| Task Title: <u>Review Shutd</u>                                            | own Margin Calculation                                                        | JPM No: 2002 NRC A1b SRO                                                                                            |
| K/A Reference: 2.1.2                                                       | 5 (3.1)                                                                       |                                                                                                                     |
| Examinee:                                                                  | N                                                                             | NRC Examiner:                                                                                                       |
| Facility Evaluator: N/A                                                    | C                                                                             | Date:                                                                                                               |
| Method of Testing:                                                         |                                                                               |                                                                                                                     |
| Simulated Performance: _                                                   | ٩٩                                                                            | Actual Performance <u>X</u>                                                                                         |
| Classroom: X                                                               | Simulator:                                                                    | Plant:                                                                                                              |
| READ TO THE EXAMINEE                                                       | 1                                                                             |                                                                                                                     |
| I will explain the initial cond<br>When you complete the tas<br>satisfied. | itions, which steps to simulate or<br>k successfully, the objective for th    | discuss, and provide initiating cues.<br>his job performance measure will be                                        |
| Initial Conditions:                                                        | Control rod "F10" is INOPERA                                                  | l control rods are at 225 steps.<br>BLE (immovable and untrippable).<br>with a boron concentration of 1200<br>76°F. |
| Task Standard:                                                             | Verify shutdown margin calcula<br>Criteria is not met in accordanc            | ation and determines that Acceptance<br>ce with 1OST-49.1                                                           |
| Required Materials:                                                        | Calculator<br>Cycle 15 Curves CB-21, CB-24                                    | 4A, 24B & 24C                                                                                                       |
| General References:                                                        | 1OST-49.1, Shutdown Margin                                                    | Calculation (Plant Critical), Rev. 6                                                                                |
| Handout:                                                                   | 1OST-49.1 (marked up copy a                                                   | ttached)                                                                                                            |
| Initiating Cue:                                                            | The Shift Manager requests yo to verify that the Acceptance C when completed. | ou to perform a review of 1OST-49.1<br>criteria is met. Report your results                                         |
| Time Critical Task:                                                        | NO                                                                            |                                                                                                                     |
| Validation Time:                                                           | 20 minutes                                                                    |                                                                                                                     |

# Page 2 of 6 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Review Shutdown Margin Calculation

2002 NRC A1b SRO

### Simulator Setup Information

Setup: None required.

### Page 3 of 6 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

**Review Shutdown Margin Calculation** 

2002 NRC A1b SRO

(Denote critical steps with an asterisk)

|                   | Evaluator Note:                                                                                                     | Provide the Candidate with a copy of 1OST-<br>49.1, Cycle 15 Curves and a calculator.                                 |  |
|-------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|
|                   |                                                                                                                     | Allow the Candidate time to review the calculation and refer to the Acceptance Criteria before reporting the results. |  |
| Performance Step: | Complete Test Preparation Data (Step VII.A).                                                                        |                                                                                                                       |  |
| Standard:         | Candidate verifies the plant is in Mode 1 and Tavg is less than 5°F above Tref from Initial Conditions.             |                                                                                                                       |  |
|                   | Candidate verifies                                                                                                  | Step VII.A.2 is N/A (Mode 2 condition).                                                                               |  |
|                   | Candidate verifies the following information in Data Sheet 1:                                                       |                                                                                                                       |  |
|                   | <ul> <li>Control Bank 'D' is at 225 steps (Step VII.A.4).</li> <li>Reactor power is 100% (Step VII.A.5).</li> </ul> |                                                                                                                       |  |
|                   |                                                                                                                     |                                                                                                                       |  |
|                   | <ul> <li>Number of Immovable or Untrippable Rods is 1 (Step VII.A.6).</li> </ul>                                    |                                                                                                                       |  |
|                   | Candidate verifies Step VII.A.7 is N/A (more than 1 immovable rod).                                                 |                                                                                                                       |  |
| Comments:         |                                                                                                                     |                                                                                                                       |  |
|                   |                                                                                                                     |                                                                                                                       |  |
| Performance Step: | Review shutdown n                                                                                                   | nargin calculation (Step VII.B).                                                                                      |  |

Standard:

Candidate identifies the following errors on Data Sheet 1:

- Values in 4.c are incorrect (1600 vs. 1800 and 1.6 vs. 1.8)
- Values in 4.d are incorrect (1.6 vs. 1.8 and 1.85 vs. 2.05)
- Values in 5 are incorrect (1.85 vs. 2.05 and 1.235 vs. 1.035)

| Evaluator Note: | If asked, inform the Candidate to correct any                       |
|-----------------|---------------------------------------------------------------------|
|                 | errors in the calculation and complete the<br>remainder of the OST. |

Comments:

| Ap | opendix C                                                     | Page 4 of 6                                                                                   | Form ES-C-1 (R8, S1)                                                |
|----|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Re | PERFORMANCE INFORMATION<br>Review Shutdown Margin Calculation |                                                                                               | 2002 NRC A1b SRO                                                    |
| *  | Performance Step:                                             | Test Completion (Section VII.C)                                                               |                                                                     |
|    | Standard:                                                     | Candidate determines that the A (SDM > 1.77% $\Delta k/k$ ) is not met a of the test results. |                                                                     |
|    |                                                               | CUE: Inform the Candidate as<br>Engineering has been co<br>margin calculation.                | the Shift Manager that Reactor<br>ontacted to reverify the shutdown |
|    | Comments:                                                     |                                                                                               |                                                                     |
|    |                                                               |                                                                                               |                                                                     |
|    |                                                               |                                                                                               |                                                                     |

**Terminating Cue:** When the Candidate informs the Shift Manager of the results of the calculation, the evaluation for this JPM is complete.

| Appendix C               | Page 5 of 6<br>VERIFICATION OF COMPL | Form ES-C-1 (R8, S1)<br>ETION |
|--------------------------|--------------------------------------|-------------------------------|
| Review Shutdown Margin ( | Calculation                          | 2002 NRC A1b SRO              |
| JPM No.:                 | 2002 NRC A1b SRO                     |                               |
|                          |                                      |                               |
| Examinee's Name:         |                                      |                               |
| Examiner's Name:         |                                      |                               |
| Date performed:          |                                      |                               |
| Facility Evaluator:      |                                      |                               |
| Number of attempts:      |                                      |                               |
| Time to complete:        |                                      |                               |
| Question Documentation:  |                                      |                               |
| Question:                |                                      |                               |
| Response:                |                                      |                               |
| Result:                  | SAT                                  | UNSAT                         |
|                          |                                      |                               |
|                          |                                      |                               |

Examiner's signature and date:

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| Append | ix | С |
|--------|----|---|
|--------|----|---|

#### Page 6 of 6 JPM CUE SHEET

Form ES-C-1 (R8, S1)

**Review Shutdown Margin Calculation** 

2002 NRC A1b SRO

**INITIAL CONDITIONS:** The Unit is at 100% power. All control rods are at 225 steps. Control rod "F10" is INOPERABLE (immovable and untrippable). Core age is 8,300 MWD/MTU with a boron concentration of 1200 1200 ppm. RCS Tavg is stable at 576°F.

INITIATING CUE:

The Shift Manager requests you to perform a review of 1OST-49.1 to verify that the Acceptance Criteria is met. Report your results when completed.

| Appendix C                                                                 | Page 1 of 6<br>JOB PERFORMANCE N                                     |                                                                                                                         |
|----------------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Facility: BVPS UNIT 1                                                      |                                                                      | Task No: 0481-020-03-013                                                                                                |
| Task Title: Prepare A Cle                                                  | earance Tagout                                                       | JPM No: 2002 NRC A2 RO                                                                                                  |
| K/A Reference: 2.2.                                                        | 13 (3.6)                                                             |                                                                                                                         |
| Examinee:                                                                  |                                                                      | NRC Examiner:                                                                                                           |
| Facility Evaluator: N/A                                                    |                                                                      | Date:                                                                                                                   |
| Method of Testing:                                                         |                                                                      |                                                                                                                         |
| Simulated Performance: _                                                   |                                                                      | Actual Performance X                                                                                                    |
| Classroom: <u>X</u>                                                        | Simulator:                                                           | Plant:                                                                                                                  |
| READ TO THE EXAMINE                                                        | E                                                                    |                                                                                                                         |
| I will explain the initial cond<br>When you complete the tas<br>satisfied. | ditions, which steps to simulat<br>sk successfully, the objective    | e or discuss, and provide initiating cues.<br>for this job performance measure will be                                  |
| Initial Conditions:                                                        | normal operating alignmer                                            | 00% power with all systems in their<br>nt. A tagout section has been prepared<br>ic Acid Transfer Pump for maintenance. |
| Task Standard:                                                             | Correctly identify all tagout                                        | t section errors.                                                                                                       |
| Required Materials:                                                        | None                                                                 |                                                                                                                         |
| General References:                                                        | NPDAP 3.4, Rev. 14<br>1OM-7.3.B and 7.3.C<br>1OM Figure 7-3, Rev. 12 |                                                                                                                         |
| Handout:                                                                   | 1OM Figure 7-3<br>1OM-7.3.B and 7.3.C                                |                                                                                                                         |
| Initiating Cue:                                                            | The Unit Supervisor directs correct selection of clearan             | s you to review the tagout section for nee points.                                                                      |
| Time Critical Task:                                                        | NO                                                                   |                                                                                                                         |
| Validation Time:                                                           | 15 minutes                                                           |                                                                                                                         |

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Page 2 of 6 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Prepare a Clearance Tagout

2002 NRC A2 RO

Simulator Setup Information

Setup: None required.

Page 3 of 5 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

Prepare A Clearance Tagout

2002 NRC A2 RO

(Denote Critical Steps with an asterisk)

NOTE: This task is normally performed using the NOMS clearance computer and signed electronically. For the purpose of this JPM, inform the Candidate to report the results of the tagout review in place of signing the tagout form.

| | Evaluator Note: | Provide Candidate with a copy of the JPM
Handout (Tagout forms and 1OM Fig. 7-3)
and 1OM-7.3.B and 7.3.C. |
|---------------------|---|--|
| Performance Step 1: | Review tagout section | on for accuracy and completeness. |
| Standard: | Candidate verifies that appropriate clearance points are selected. | |
| | Candidate identifies | and reports the following tagout errors: |
| | Valve [1CH-80] is incorrectly listed in the OPEN position. Valve [1CH-99] is incorrectly listed in the SHUT position in the Restoration Section. | |
| | | |
| | 480V breaker is incorrectly listed as MCC-1-E11-B. | |
| | Evaluator Note: | If the Candidate asks for direction following
identification of the first error, direct the
Candidate to review the remainder of the tagou
section. |

Comments:

Terminating Cue:

When the Candidate reports the results of the tagout section review the evaluation for this JPM is complete.

| Appendix C | Page 4
VERIFICATION OF | | ION | Form ES-C-1 | (R8, S1) |
|---------------------------|---------------------------|-------|-------|-------------|----------------|
| Prepare A Clearance Tagou | t | | | 2002 NR | <u>C A2 RO</u> |
| | | | | | |
| JPM No.: | 2002 NRC A2 RO | | | | |
| Examinee's Name: | | | | | |
| Examiner's Name: | | | | | |
| Date performed: | | | | | |
| Facility Evaluator: | | | | | |
| Number of attempts: | | | | | |
| Time to complete: | | | | | |
| Question Documentation: | | | | | |
| Question: | | | | | |
| | | | | | |
| Response: | | | | | |
| Result: | SAT | UNSAT | | | |
| | | | | | |
| Examiner's Signature: | | | Date: | | |

| Appendix C | Page 5 of 5
JPM CUE SHEET | Form ES-C-1 (R8, S1) |
|--------------------------|--|-------------------------------|
| Prepare A Clearance Tago | but | 2002 NRC A2 RO |
| INITIAL CONDITIONS: | The plant is operating at 100% pow
normal operating alignment. A tage
to isolate [1CH-P-2B], Boric Acid Tr | out section has been prepared |
| INITIATING CUE: | The Unit Supervisor directs you to
correct selection of clearance point | |

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| Appendix C | JOB PERFORMANCE | MEASURE Form ES-C-1 (R8, S1) |
|--|--|---|
| Facility: BVPS UNIT 1 | | Task No: 1300-027-03-023 |
| Task Title: <u>Evaluate Re</u>
<u>From Servic</u> | <u>moving Equipment</u>
<u>e</u> | JPM No: 2002 NRC A2 SRO |
| K/A Reference: 2.2 | .17 (3.5) | |
| Examinee: | | NRC Examiner: |
| Facility Evaluator: N/A | A | Date: |
| Method of Testing: | | |
| Simulated Performance: | | Actual Performance X |
| Classroom: <u>X</u> | Simulator: | Plant: |
| READ TO THE EXAMINE | E | |
| l will explain the initial cor
When you complete the ta
satisfied. | nditions, which steps to simula
ask successfully, the objective | te or discuss, and provide initiating cues.
for this job performance measure will be |
| Initial Conditions: | The Unit is in Mode 1. [1]
No. 1 is scheduled to be t
from service within 1 hour | EE-EG-1], Emergency Diesel Generator
agged out for maintenance and removed |
| | troubleshoot [1MS-465], 7
Valve. The valve will be a
expected to take 5 hours | n has requested permission to tagout and
Turbine Driven AFW Pump Trip & Throttle
eft open during troubleshooting. The work
to complete. All other plant equipment is
ety Engineer is not available. |
| Task Standard: | Correctly determine which equipment may be removed from service in accordance with NPDAP 7.12. | |
| Required Materials: | None | |
| General References: | NPDAP 7.12, Non-Outage
Unit 1 Technical Specifica | Planning, Scheduling, and Risk Assessm
tions |
| Handout: | NPDAP 7.12
Unit 1 Technical Specifica | tions |
| nitiating Cue: | | ons, determine which maintenance activitie
eed and report your results. |
| Fime Critical Task: | NO | |

Validation Time: 15 minutes

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Page 2 of 5 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Perform On-Line Risk Assessment

2002 NRC A2 SRO

Simulator Setup Information

Setup: None required.

| Appendix C | Page 3 | of 5 | Form ES-C-1 (R8, S1) |
|-------------------------------|---|--|--|
| | PERFORMANCE | INFORMATION | |
| Perform On-Line Risk Asse | ssment | | 2002 NRC A2 SRO |
| (Denote critical steps with a | n asterisk) | | |
| * Performance Step 1: | Correctly determine to proceed. | the maintenance | activities that can be authorized |
| Standard: | Candidate determin
No. 1 and the Turbi
removed from servi | 1], Emergency Diesel Generator
ump cannot be simultaneously | |
| | Evaluator Note: | | DAP 7.12, Attachment 8, Item 4
d Auxiliary Feedwater. |
| Comments: | | | |

Terminating Cue:

When the Candidate reports the results of the determination, the evaluation for this JPM is complete.

| Appendix C | Page 4 of 5
VERIFICATION OF COM | PLETION | Form ES-C-1 (R8, S1) |
|---------------------------|------------------------------------|---------|----------------------|
| Perform On-Line Risk Asse | essment | | 2002 NRC A2 SRO |
| JPM No.: | 2002 NRC A2 SRO | | |
| Examinee's Name: | | | |
| Examiner's Name: | | | |
| Date performed: | | | |
| Facility Evaluator: | | | |
| Number of attempts: | | | |
| Time to complete: | | | |
| Question Documentation: | | | |
| Question: | | | |
| Response: | | | |
| Result: | SAT | UNSAT | |
| | | | |
| | | | |

Sec. 1

Examiner's signature and date:

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| Appendix C | Page 5 of 5
JPM CUE SHEET | Form ES-C-1 (R8, S1) |
|--------------------------|---|--|
| Perform On-Line Risk Ass | essment | 2002 NRC A2 SRO |
| INITIAL CONDITIONS: | The Unit is in Mode 1. [1EE-EG-1], Emergency Diesel Generator
No. 1 is scheduled to be tagged out for maintenance and removed
from service within 1 hour. | |
| | Additionally, the FIN Team has requ
troubleshoot [1MS-465], Turbine Dri
Valve. The valve will be left open du
expected to take 5 hours to complete
operable. A Reactor Safety Enginee | ven AFW Pump Trip & Throttle
uring troubleshooting. The work
e. All other plant equipment is |
| | | |
| | | |

INITIATING CUE: For the given plant conditions, determine which maintenance activities can be authorized to proceed and report your results.

| Appendix C | JOB PERFORMANCE MEASURE | Form ES-C-1 (R8, S1) |
|--|---|---|
| Facility: BVPS UNIT 1 | | Task No: N/A |
| Task Title: RCA Entry Re | quirements | JPM No: 2002 NRC A3 RO/SRC |
| K/A Reference: 2.3.1 (2. | 6/3.0) | |
| Examinee: | NRC E | Examiner: |
| Facility Evaluator: N/A | Date: | |
| Method of Testing: | | |
| Simulated Performance: | XActual | Performance |
| Classroom: | Simulator: | Plant: <u>X</u> |
| READ TO THE EXAMINEE | | |
| I will explain the initial cond
When you complete the tas
satisfied. | tions, which steps to simulate or discu
k successfully, the objective for this job | ss, and provide initiating cues.
performance measure will be |
| Initial Conditions: | The Unit is at 100% power. Annunc
Level Low is in alarm. | iator [A6-3], Spent Fuel Pool |
| Task Standard: | Correctly enter and exit the RCA in a administrative procedures and radio | |
| Required Materials: | Survey Frisker or Personnel Contamination Monitor | |
| General References: | 1/2-ADM-1630, Radiation Worker Practices, Rev. 3 | |
| Handout: | Radiation Work Permits (attached copies) | |
| Initiating Cue: | As the PAB Operator, the Unit Supervisor requests you to enter the RCA to make up to the Spent Fuel Pool. | |
| Time Critical Task: | NO | |
| Validation Time: | 10 minutes | |

Page 2 of 6 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

RCA Entry Requirements

2002 NRC A3 RO/SRO

Simulator Setup Information

Setup: None required.

Page 3 of 6 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

RCA Entry Requirements

2002 NRC A3 RO/SRO

(Denote critical steps with an asterisk)

NOTE: This JPM is performed in association with JPM P2 - Respond to a SFP Low Level Alarm. This JPM must begin prior to entering the RCA.

Evaluator Note: After giving the Initiating Cue for this JPM, provide the Candidate with copies of the 4 RWP's.

- * **Performance Step 1:** Select the proper RWP for entry into the RCA.
 - Standard: Candidate selects RWP 102-1020, High Radiation Area Ops Routine Functions.
 - Evaluator Note: After Candidate selects the correct RWP, acknowledge the Candidate's choice and then direct the Candidate to follow normal radiological work practices to enter the RCA.

Comments:

| NOTE | | e RCA, suspend performance of this JPM and proceed to JPM P2.
JPM P2 and prior to exiting the RCA, continue with evaluation of |
|------|--------------------|---|
| * Pe | erformance Step 2: | Performs exit survey using frisker or PCM to determine contamination is not present. |
| St | andard: | Correctly frisk or uses PCM to detect contamination. |
| | | CUE: Frisker/PCM alarms indicating your face is contaminated. |
| Co | omments: | |

| Appendix C
RCA Entry Requirements | | Page 4 of 6
PERFORMANCE INFORMATION | Form ES-C-1 (R8, S1) |
|--------------------------------------|---------------------|--|---|
| | | | 2002 NRC A3 RO/SRO |
| * | Performance Step 3: | Repeats survey using frisker or PCM to verify contamination. | |
| | Standard: | Informs Health Physics Technician that face is contaminated and waits for further guidance. | |
| | | Ensures not to spread contamination while contacting Health Physics Technician for assistance. | |
| | | CUE: As Health Physics Technician survey using the frisker or F | an, direct Candidate to repeat th
^p CM. |
| | Comments: | | |
| | | | |
| | | | |
| | | | |

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Terminating Cue: When Candidate repeats frisk/PCM survey, the evaluation for this JPM is complete.

Appendix C Page 5 of 6 Form ES-C-1 (R8, S1) VERIFICATION OF COMPLETION **RCA Entry Requirements** 2002 NRC A3 RO/SRO JPM No.: 2002 NRC A3 RO/SRO Examinee's Name: Examiner's Name: Date performed: Facility Evaluator: Number of attempts: Time to complete: Question Documentation: Question: Response: **Result:** SAT _____ UNSAT

Examiner's signature and date:

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| Appendix C | Page 6 of 6
JPM CUE SHEET | Form ES-C-1 (R8, S1) |
|------------------------|---|----------------------|
| RCA Entry Requirements | | 2002 NRC A3 RO/SRO |
| INITIAL CONDITIONS: | The Unit is at 100% power. Annunciator [A6-3], Spent Fuel Pool Level Low is in alarm. | |
| INITIATING CUE: | As the PAB Operator, the Unit Supe
the RCA to make up to the Spent Fi | |

| Appendix C | JOB PERFORMANCE MEA | SURE Form ES-C-1 (R8, S1) |
|--|---|--|
| Facility: BVPS UNIT 1 | | Task No: N/A |
| Task Title: <u>Emergency I</u>
Questions (F | | JPM No: 2002 NRC A4 RO |
| K/A Reference: 2.4 | 29 (2.6) 2.4.39 (3.3) | |
| Examinee: | | NRC Examiner: |
| Facility Evaluator: N/A | | Date: |
| Method of Testing: | | |
| Simulated Performance: | | Actual Performance X |
| Classroom: <u>X</u> | Simulator: | Plant: |
| Initial Conditions: | N/A | |
| Initial Conditions: | N/A | |
| Task Standard: | Both questions answered corr | ectly (minimum 80%). |
| Required Materials: | None | |
| General References: | EPP/IP 1.1, Notifications, Rev
EPP/IP 1.5, Operations Suppo
and Deactivation, Rev. 14 | . 30
ort Center (OSC) Activation, Operation |
| Handout: | None | |
| Initiating Cue: | N/A | |
| Time Critical Task: | NO | |
| Validation Time: | 10 minutes | |

Page 2 of 7 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

Emergency Plan Administrative Questions (RO)

2002 NRC A4 RO

Simulator Setup Information

Setup: None required.

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Page 3 of 7 PERFORMANCE INFORMATION Form ES-C-1 (R8, S1)

2002 NRC A4 RO

Emergency Plan Administrative Questions (RO)

QUESTION #1

Closed Reference

A Site Area Emergency has been declared at Unit 1.

State the time requirement for Initial Notification and the methods by which the notifications can be made.

Page 4 of 7 PERFORMANCE INFORMATION Emergency Plan Administrative Questions (RO)

Form ES-C-1 (R8, S1)

2002 NRC A4 RO

QUESTION #2

Closed Reference

Describe the location of the OSC and the Alternate OSC and when each must be activated.

Page 5 of 7 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

2002 NRC A4 RO

Emergency Plan Administrative Questions (RO)



Question #1

A Site Area Emergency has been declared at Unit 1.

State the time requirement for Initial Notification and the methods by which the notifications can be made.

ANSWER:

Initial Notifications are to be made within 15 minutes of the event declaration. Official notification is made by telephone or radio.

Grading Criteria:

- This question is worth 50% of the overall grade with the following breakdown:
 - 15 minute time requirement (30%)
 - Notification by telephone (10%) or radio (10%)

Page 6 of 7 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

Emergency Plan Administrative Questions (RO)

2002 NRC A4 RO



Question #2

Describe the location of the OSC and the Alternate OSC and when each must be activated.

ANSWER:

The OSC is located above the Control Rooms in Outage Central. The OSC is required to be activated within 60 minutes of the declaration of an Alert classification, or at the direction of the Emergency Director.

The Alternated OSC is located below the Unit 1 Control Room in the Process Instrumentation and Rod Position Instrumentation Area. The Alternate OSC is activated in the event the OSC becomes uninhabitable or access to it is restricted.

Grading Criteria:

- This question is worth 50% of the overall grade with the following breakdown:
 - OSC location and activation requirement (25%)
 - Alternate OSC location and activation requirement (25%)

| Appendix C | Page 7 of 7
VERIFICATION OF COMPL | |
|-----------------------------|--------------------------------------|----------------|
| Emergency Plan Administrat | tive Questions (RO) | 2002 NRC A4 RO |
| | | |
| JPM No.: | 2002 NRC A4 RO | |
| Examinee's Name: | | |
| Examiner's Name: | | |
| Date performed: | | |
| Facility Evaluator: | | |
| Number of attempts: | | |
| Time to complete: | | |
| Question Documentation: | | |
| Question: | | |
| Response: | | |
| Result: | SAT | UNSAT |
| Examiner's signature and da | te [.] | |

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| Appendix C | JOB PERFORMANCE MEASURE | Form ES-C-1 (R8, S1) | |
|---|--|---|--|
| Facility: BVPS UNIT 1 | | Task No: 1350-004-03-023 | |
| Task Title: EPP Classific | ation | JPM No: 2002 NRC A4 SRO | |
| K/A Reference: 2.4.41 | (4.1) | | |
| Examinee: | NRC I | Examiner: | |
| Facility Evaluator: | N/A Date: | | |
| Method of Testing: | | | |
| Simulated Performance: _ | Actual | Performance X | |
| Classroom: | Simulator: <u>X</u> | Plant: | |
| READ TO THE EXAMINE | Ξ | | |
| 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 simulator scenario just complete | ed. | |
| Task Standard: | The proper EPP classification is made within 15 minutes. | | |
| Required Materials: | None | | |
| General References: | General References: EPP/I-1A, Recognition and Classification of Emergency Conditions
Rev. 1 | | |
| Handouts | None | | |
| Initiating Cue: | Classify the events in the scenario ju
EPP/I-1A, Recognition and Classific | ust completed in accordance with ation of Emergency Conditions. | |
| Critical Task: | YES | | |
| Validation Time: | 5 minutes | | |

Page 2 of 5 JOB PERFORMANCE MEASURE

Form ES-C-1 (R8, S1)

EPP Classification

2002 NRC A4 SRO

Simulator Setup Information

Setup: None required.

Page 3 of 5 PERFORMANCE INFORMATION

Form ES-C-1 (R8, S1)

EPP Classification

2002 NRC A4 SRO

(Denote critical steps with an asterisk)

| | | Evaluator Note: | The Candidate is being evaluated on classifying the scenario events just completed. |
|---|---------------------|--|---|
| * | Performance Step 1: | Classify the event in accordance with the Emergency Plan. | |
| | Standard: | Candidate properly classifies the event within 15 minutes. | |
| | | Scenario #1: | Site Area Emergency classification based on EPP/I-1a, Tab 1.2.4 and 1.3.4. |
| | | Scenario #2: | Alert classification based on EPP/I-1a, Tab
1.2.3. |
| | | Scenario #3: | Alert classification based on EPP/I-1a, Tab
2.3. |
| | | Scenario #4: | Site Area Emergency classification based on EPP/I-1a, Tab 2.3. |
| | | Scenario #5: | Site Area Emergency classification based on EPP/I-1a, Tab 1.1.1 and 1.2.1. |

Comments:

Terminating Cue: When the Candidate classifies the event, the evaluation for this JPM is complete.

| Page 4 of 5
VERIFICATION OF COMP | Form ES-C-1 (R8, S1) |
|-------------------------------------|----------------------|
| | 2002 NRC A4 SRO |
| | |
| 2002 NRC A4 SRO | |
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| | |
| SAT | UNSAT |
| | |
| | VERIFICATION OF COMP |

Examiner's signature and date:

| Appendix C | Page 5 of 5
JPM CUE SHEET | Form ES-C-1 (R8, S1) |
|---------------------|--|--|
| EPP Classification | | 2002 NRC A4 SRO |
| INITIAL CONDITIONS: | The simulator scenario just completed. | |
| INITIATING CUE: | Classify the events in the scenario just c
EPP/I-1A, Recognition and Classificatior | completed in accordance with
n of Emergency Conditions. |