



Facility: Oyster CreekTask No: 2000101404Task Title: Perform a Manual Reactor Heat BalanceJob Performance Measure No: NRC Admin RO1K/A Reference: G2.1.7 (RO 3.7/SRO 4.4), G2.1.20 (RO 4.3/SRO 4.2)

Examinee: _____

NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:Simulated Performance _____ Actual Performance XClassroom _____ 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:

1. The Reactor is at 100% power with all systems normally aligned.
2. No transients are in progress.
3. Reactor water level, power, and pressure are stable.
4. Feed pump discharge pressure is 1300 psig for all three loops.
5. The PPC is unavailable.

Task Standard: A manual reactor heat balance has been completed IAW Procedure 1001.6.

Required Materials: Calculator

General References: Procedure 1001.6, Core Heat Balance and Feedwater Flow Calculation – Power Range, Rev. 26

Initiating Cue: Perform a manual reactor heat balance IAW with procedure 1001.6, Core Heat Balance and Feedwater Flow Calculation – Power Range.

Time Critical Task: No

Validation Time: 18 minutes

Simulator Setup: IC-65.

Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1

JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

_____ Performance Step: 2

Standard: Obtains a copy of the reference procedure and review/utilize the correct section (Procedure 1001.6, Section 5).

Comment:

_____ Performance Step: 3

Standard: Verifies Prerequisites and reviews Precautions and Limitations.

Comment:

Performance Information

_____ Performance Step: 4 (step 5.1.1)

Standard: Calculates feedwater flow per Method 1 by performing the following:

1. Requests EO to report total feedwater Δp in inches of water from venturi transmitter FT-422-1 in the Feedwater Pump Room and records.

CUE: As the EO, report reading on FT-422-1 as 489 inches of water Δp .

2. Records feedwater temperature from 5F/6F Recorder (ID0101), rounded to nearest whole degree.
3. OBTAIN the specific volume (v) of the Feedwater at 1100 psia and the temperature above from Attachment 1001.6-3 and records.

Comment:

_____ Performance Step: 5 (step 5.2.1)

Standard: Records reactor pressure to the nearest whole pound. (Narrow range recorder Panel 5F/6F)

Comment:

Performance Information

_____ Performance Step: 6 (step 5.2.2)

Standard: Records Feedwater temperature to the nearest whole degree. (Recorder panel 5F/6F)

Comment:

_____ Performance Step: 7 (step 5.2.3)

Standard: Records recirculation flow to the nearest thousand gpm. (Recorder panel 3F)

Comment:

_____ Performance Step: 8 (step 5.2.4)

Standard: Calculates the reactor absolute pressure by adding the value of step 5 (step 5.2.1) + 14.7 pounds pressure and records.

Comment:

Performance Information

_____ Performance Step: 9 (step 5.2.5)

Standard: Records Main Steam enthalpy from Attachment 1001.6-5, at saturated conditions using calculated absolute pressure.

Comment:

_____ Performance Step: 10 (step 5.2.6)

Standard: Records the Feedwater enthalpy from Attachment 1001.6-6 for compressed water at 1100 psia using Feedwater temperature.

Comment:

_____ Performance Step: 11 (step 5.2.7)

Standard: Calculates the difference of the Main Steam and Feedwater enthalpies and records.

Comment:

Performance Information

_____ Performance Step: 12 (step 5.2.8)

Standard: Records Total Flow Venturi method FLO (tot) from line (D) of the Feedwater flow calculation worksheet (Attachment 1001.6-1).

Comment:

_____ Performance Step: 13 (step 5.2.9)

Standard: Calculates the product of the Feedwater flow and the enthalpy difference to obtain MBTU/hr and record.

Comment:

_____ Performance Step: 14 (step 5.2.10)

Standard: Converts MBTU/hr to Megawatts. (MBTU/hr x 0.293) and record.

Comment:

Performance Information

_____ Performance Step: 15 (step 5.2.11)

Standard: Records RWCU flow to the nearest gpm (recorder panel 3F) on line (K) of Attachment 1001.6-2.

Comment:

_____ Performance Step: 16 (step 5.2.12)

Standard: Calculates the CRD, recirc. pump power, RWCU and ambient losses adjustment (Fixed Losses), per the following equation.

Enter the appropriate value for Fixed Losses on line (L) of Attachment 1001.6-2.

- Fixed Losses = [(K) x 0.0136] + 9.0

Comment:

Performance Step: 17 (step 5.13)

Standard: Add the Fixed Losses from line (L) to the Megawatts from Line (J) and record the Calculated Core Thermal Power (CTP) on line (N). Acceptable values are 1900 – 1960 MWth (1930 MWth ± 1.5%).

Comment:

Performance Information

_____ Performance Step: 18 (steps 5.2.14/5.2.15)

Standard: Marks these steps as N/A since the PPC is not available.

Comment:

_____ Performance Step: 19 (steps 5.3/5.4)

Standard: 1. Verifies that the RWCU system differential temperature is < 80 deg F (step 5.3)

CUE: Inform the Candidate that another Operator will perform step 5.3.

2. Provides completed calculation to the SRO. (step 5.4)

Comment:

Terminating Cue: A manual reactor heat balance has been completed IAW Procedure 1001.6.

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin RO1

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The Reactor is at 100% power with all systems normally aligned.
2. No transients are in progress.
3. Reactor water level, power, and pressure are stable.
4. Feed pump discharge pressure is 1300 psig for all three loops.
5. The PPC is unavailable.

Task Cue:

Perform a manual reactor heat balance IAW with procedure 1001.6, Core Heat Balance and Feedwater Flow Calculation – Power Range.

AVIRY

Facility: Oyster CreekTask No: 2150101005Task Title: Perform Core Daily Checks (APRM Drawer Count)Job Performance Measure No: NRC Admin RO2K/A Reference: G2.1.2 (RO 3.0/SRO 4.0) G2.1.31 (RO4.2/SRO 3.0)

Examinee: _____

NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:Simulated Performance _____ Actual Performance XClassroom _____ 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:

1. The plant is at full power.

Task Standard: The APRM Drawer count documentation is complete and the correct discrepancy has been identified.

Required Materials:

1. Copy of Attachment 202.1-1, with the following LPRMs marked as BYPASSED in Section 1: 12-17D and 20-25D (inputs to APRM 7), 28-33C (APRM 1), and 12-17A (APRM 3).
2. Copy of Attachment 403-2, with the following LPRMs marked as BYPASSED: 12-17D and 20-25D (inputs to APRM 7), 28-33C (APRM 1), and 12-17A (APRM 3).

General References

1. Procedure 202.1, Power Operation, Rev. 98
2. Procedure 403, LPRM-APRM System Operations, Rev. 11

Initiating Cue: Verify LPRM inputs to APRM 7 IAW Procedure 202.1, Power Operation, Attachment 202.1-4, Section 2.

Performance Information

_____ Performance Step: 4 (step 5.3.3.8.1 of procedure 403)

Standard: Obtains US permission.

CUE: Report US permission to continue.

Comment:

Performance Step: 5 (step 5.3.3.8.2)

Standard: Confirms APRM bypassing is allowed, and then places joystick for APRM 7 on Panel 4F to the CH 7 position. (Panel 4F)

Comment:

Performance Step: 6 (step 5.3.3.8.3)

Standard: Rotates APRM 7 drawer INPUT switch clockwise to the COUNT position. (Panel 5R)

Note: The indication will read 60% (6 LPRM inputs).

Comment:

Performance Information

 ✓ Performance Step: 7 (step 5.3.3.8.3.a)

Standard: Continues to rotate the same INPUT switch to position "8", position "7", etc.
(Panel 5R)

Marks LPRM 12-17D and 20-25B as Bypassed on Attachment 202.1-1.

Marks the number of UNBYPASSED LPRMs as "6" on Attachment 202.1-1.

Note: LPRMs 12-17D and 20-25B will indicate "0" when selected (bypassed).

Comment:

 ✓ Performance Step: 8 (step 5.3.3.8.3.b)

Standard: Continues to rotate the same INPUT switch to the AVERAGE position.

NOTE: The APRM will again show 100% power on the meter.

Comment:

 Performance Step: 9 (step 5.3.3.8.3.c)

Standard: Unbypasses APRM 7 by placing the APRM joystick from CH 7 to the neutral position (Panel 4F).

CUE: Procedure step 5.3.3.8.4 says to repeat the above manipulations for other APRMs, as required. No other APRM counts are required to be performed.

CUE: Procedure step 5.3.3.8.5 says to verify ALL APRM INPUT switches in AVERAGE and is not required.

Performance Information

Comment:

Performance Step: 10

Standard: Initials completion on Attachment 202.1-1 and recognizes the following discrepancy: (initial not required for critical task)

- LPRM 20-25D had been shown as BYPASSED and is NOT BYPASSED.
- LPRM 20-25B had NOT been shown as BYPASSED and is BYPASSED.

Notifies the SRO of the discrepancy (not required for critical task).

Cue: As the SRO, acknowledge the report.

Comment:

Terminating Cue: The APRM Drawer count documentation is complete and the correct discrepancy has been identified.

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin RO2

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

ATTACHMENT 202.1-1

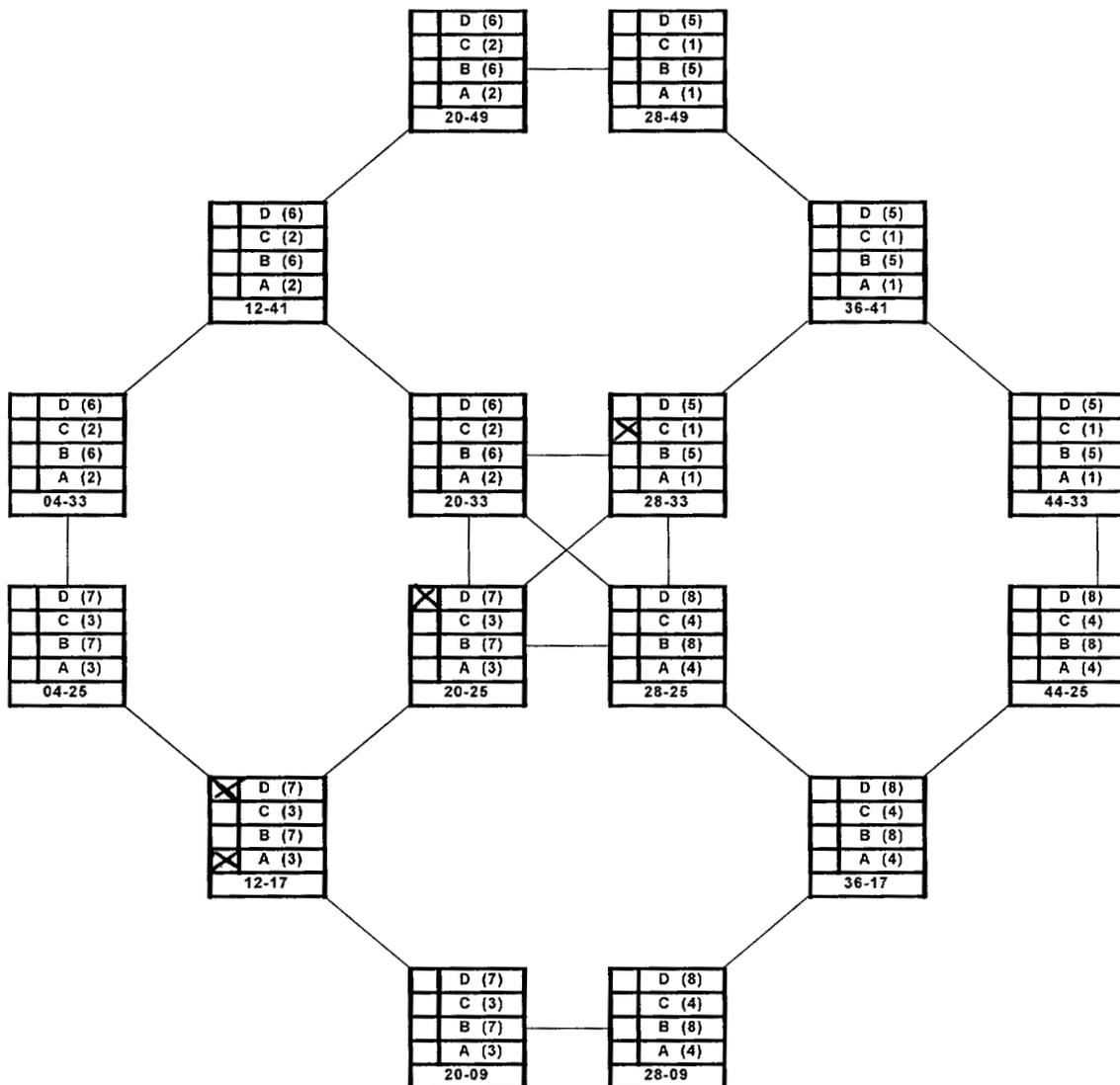
DAILY APRM STATUS CHECK

NOTE: MARK FAILED OR INOP LPRMS WITH AN "X". Complete work sheet per 202.1-4 instructions.

Section 1: Perform nightly

403-3 Verified correct W (initial)

403-4 Verified correct W (initial)



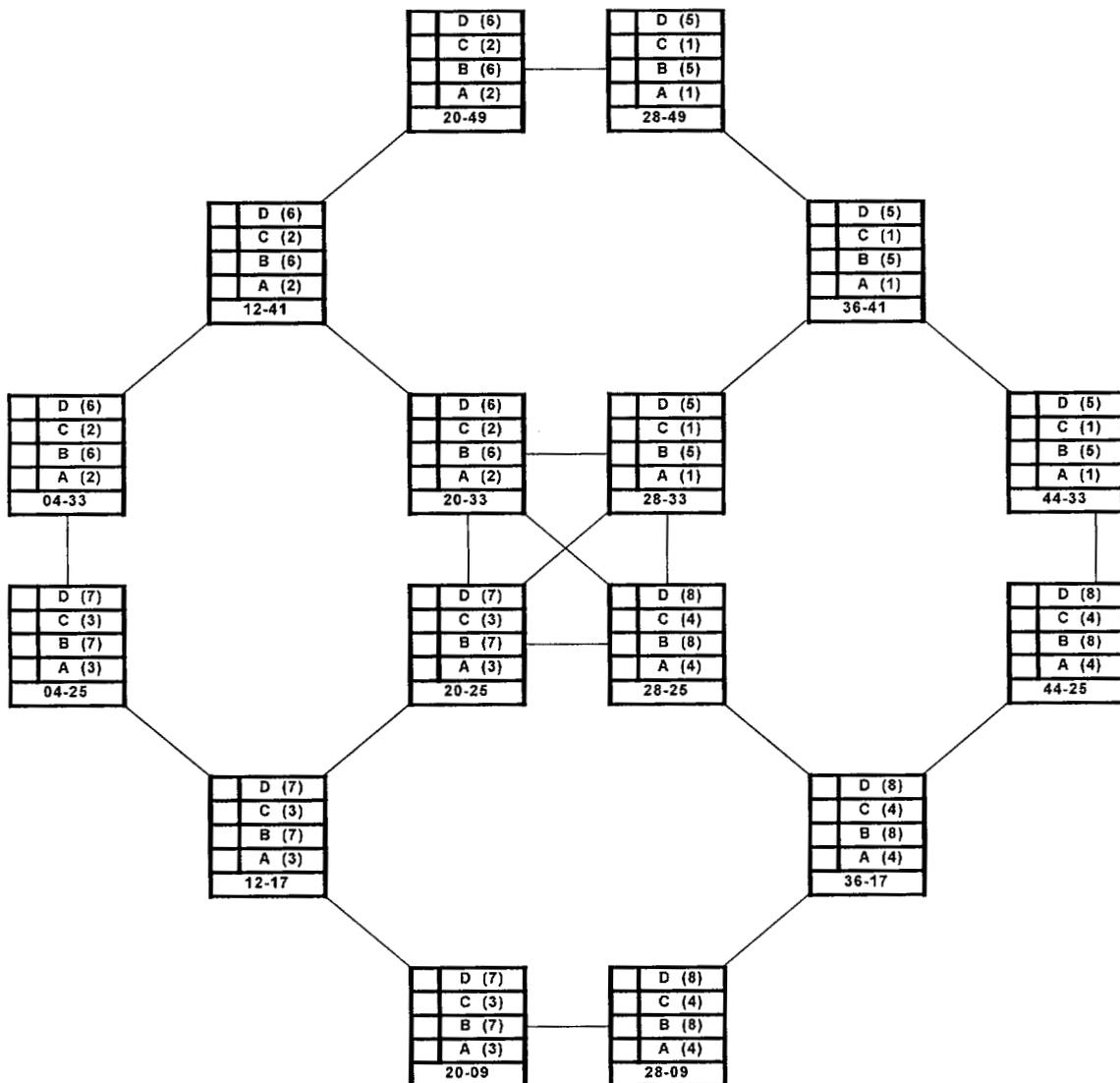
ATTACHMENT 202.1-1
DAILY APRM STATUS CHECK

NOTE: MARK FAILED OR INOP LPRMS WITH AN "X". Complete work sheet per 202.1-4 instructions.

Section 1: Perform nightly

403-3 Verified correct _____ (initial)

403-4 Verified correct _____ (initial)



ATTACHMENT 202.1-4
CORE DAILY CHECKS

1. From procedure 403, obtain the following information and document on attachment 202.1-1 the following:
 - a. Inoperable or bypassed LPRMs that are inputs to the APRM system. From 403-2 []
 - b. All LPRMs in any inoperable or bypassed APRM Channel. From 403-2 []
 - c. Verify lights and markings on 4F panel match 202.1-1 []
 - d. Verify FCTR Card status and active LED's are green and curve select display is 0 []
 - e. Verify 403-3 LPRM/APRM STATUS LOG SHEET is up to date and initial. []
 - f. Verify 403-4 NON-INPUT LPRM STATUS LOG SHEET is up to date and initial []
2. On the first Sunday of each month verify inputs to APRM drawers as follows.
 - a. Perform drawer input count per 403 and verify number of inputs matches and correct inputs are bypassed. []
 - b. Mark bypassed LPRM inputs to APRMs on section 2 of 202.1-1 []
 - c. Mark the number of Un-bypassed inputs on section 2 of 202.1-1 I.E. 8,7,6, or 5 []
3. Perform a "Screen Print" of the PPC Core State Parameters Display. Verify thermal limits are acceptable and date/time of last case is reasonable. []
4. Determine the required APRM 100% Setpoint in accordance with Attachment 202.1-3. []
5. Adjust the APRMs according to the following equation: []

$$\text{APRM Setting} = \frac{\text{Core Thermal Power from Heat Balance} * 100}{\text{APRM 100 percent setpoint}}$$
6. Perform a "Screen Print" of the PPC Reactor Heat Balance Display []

Verify the following RWCU parameters are displayed:

RWCU Inlet Temp = 520 Deg. F (constant)
 RWCU Outlet Temp = 440 Deg. F (constant)
 RWCU Flow = _____ GPM (3F Recorder)

Record RWCU Flow as indicated on 3F Recorder, and verify this value is **not** more than 10 GPM higher than the PPC RWCU Flow Input.
7. Attach a Surveillance Review Form, Attachment 116-1, to the "Reactor Heat Balance Display", the "Core State Parameters Display", Attachment 202.1-1 and Attachment 202.1-3. []



OYSTER CREEK
GENERATING STATION
PROCEDURE

Number
202.1

Title	Usage Level	Revision No.
Power Operation	1	99

Prior Revision 98 incorporated the following Temporary Changes:

N/A

This revision 99 incorporates the following Temporary Changes:

TC-07/17/06-01

List of Pages

1.0 to 41.0
E1-1 to E1-2
E2-1
E3-1
E4-1
E5-1 to E5-5
E6-1 to E6-4
E-7-1

STUDENT HANDOUT

Initial Conditions:

1. The plant is at full power.

Task Cue:

Verify LPRM inputs to APRM 7 IAW Procedure 202.1, Power Operation, Attachment 202.1-4, Section 2.

Title	Revision No.
Power Operation	99

ATTACHMENT 202.1-1

(continued)

DAILY APRM STATUS CHECK

Section 2: Perform on the first Sunday of each month.

- Place an X in the box next to the LPRM's that are Bypassed
- Place the number of **un-bypassed** inputs in last row. Perform drawer count per 403. Verify number of inputs correct and bypassed LPRM inputs are correct. _____ (initial)

APRM 1	APRM 2	APRM 3	APRM 4	APRM 5	APRM 6	APRM 7	APRM 8
28-33A	20-33C	12-17A	36-17C	28-33D	20-33B	12-17D	36-17B
44-33A	20-49C	20-09A	44-25C	44-33D	20-49B	20-09D	44-25B
28-49A	04-33C	04-25A	28-09C	28-49D	04-33B	04-25D	28-09B
36-41A	12-41C	20-25A	28-25C	36-41D	12-41B	20-25D	28-25B
36-41C	12-41A	20-25C	28-25A	36-41B	12-41D	20-25B	28-25D
28-49C	04-33A	04-25C	28-09A	28-49B	04-33D	04-25B	28-09D
44-33C	20-49A	20-09C	44-25A	44-33B	20-49D	20-09B	44-25D
28-33C	20-33A	12-17C	36-17A	28-33B	20-33D	12-17B	36-17D
UN- BYPASSED							



Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1 JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

Performance Step: 2

Standard: Reviews the clearance request against the reference materials. The clearance request isolation points are deficient for personnel protection due to the following:

1. The listed power supply for the breaker for SDC Pump C is incorrect: USS 1A2 is listed; the correct power supply is USS 1B2.
2. OP-MA-109-101, step 5.3.1.5, says that dual valve protection should be provided when isolating from an energy source of > 200° F or pressures > 500 psig.
 - a. SDC motor-operated Isolation valves V-17-19 (on the SDC pump suction side) and V-17-54 (on the SDC pump discharge side) must be CLOSED and have their breakers DE-ENERGIZED (Note: a motor-operated valve on the SDC pump discharge side, V-17-207, could be CLOSED and de-energized in place of V-17-54; there is no alternate isolation valve on the SDC suction side).

NOTE: The following items are not required: type of tag, clearance sequence, identification of vent/drain valves, or how a component is de-energized (a breaker is opened/locked open/racked-out).

Comment:

Terminating Cue: The clearance has been found to be unacceptable for personnel protection (see reasons above).

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin RO3

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The plant is hot at 295° F, and is cooling down with Isolation Condensers.
2. Shutdown Cooling Pumps A and B have motor shorts and cannot be used.
3. Shutdown Cooling Pump C was placed into service and found to have high vibrations and was subsequently secured. Engineering has determined that Shutdown Cooling Pump C needs an internal inspection.
4. No Shutdown Cooling System isolations are in effect.

Task Cue:

Attached is the clearance request (from Maintenance) for Shutdown Cooling Pump C. Confirm the isolation points meet the requirements for personnel protection under the given conditions.

STUDENT HANDOUTClearance Request

Work to be performed: Perform an internal inspection of Shutdown Cooling Pump C

Clearance Isolation Points:

- Electrically isolate Shutdown Cooling Pump C
 - Place Shutdown Cooling Pump C control switch in PTL ✓
 - DE-ENERGIZE¹ Shutdown Cooling Pump C breaker on 480V USS (1A2) 1B2 ✓
 - DE-ENERGIZE¹ Shutdown Cooling Pump C motor heaters (if there are any) ✓

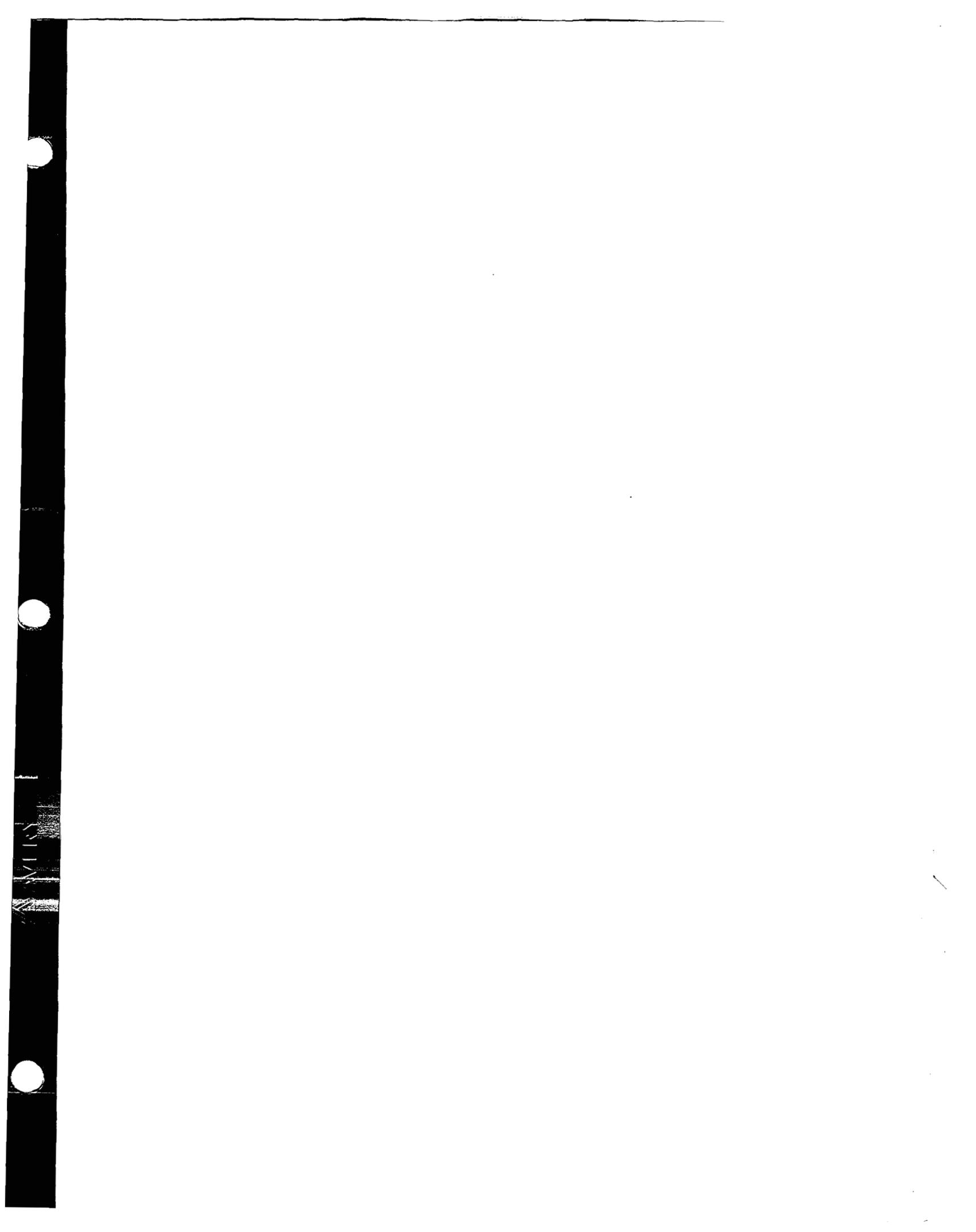
- Hydraulically isolate Shutdown Cooling Pump C
 - Place Shutdown Cooling Pump C suction valve V-17-3 switch in CLOSE ✓
 - Place Shutdown Cooling Pump C discharge valve V-17-57 switch in CLOSE ✓
 - DE-ENERGIZE¹ Shutdown Cooling Pump C suction valve V-17-3 breaker on MCC-DC1 ✓
 - DE-ENERGIZE¹ Shutdown Cooling Pump C discharge valve V-17-57 breaker on MCC-DC1 ✓
 - Isolate RBCCW to Shutdown Cooling Pump C
 - CLOSE V-5-207 and V-5-208 ✓

- When the pump has been isolated, then drain the isolated portion of Shutdown Cooling Pump C
 - OPEN the appropriate Shutdown Cooling Pump C vents and drains²

V-17-19 closed
 V-17-207 or V-17-54 closed

NOTES:

1. "de-energize" means to remove electrical power by the appropriate means (opening the breaker, or opening the breaker and locking open, or racking-out of the breaker).
2. identification of vents and drains is not required.
3. all valves are considered operable, such that an "open" valve will allow full flow (no blockage), and a "closed" valve allows no flow (no leakage).
4. the sequencing of steps is not required.



Performance Information

 ✓ Performance Step: 3 (Procedure EP-OC-1010) (Timed Critical Step #1)

Standard: Classifies the emergency as a General Emergency

- MG1: Prolonged Loss of ALL Offsite AC Power AND Prolonged Loss of ALL Onsite AC Power
- The emergency classification is made \leq 15 minutes from the start time.

Comment:

Critical Task #1 Stop Time: _____

Critical Task #2 Start Time: _____

 ✓ Performance Step: 4 (Attachment 1 of EP-OC-114-100)
(Timed Critical Step #2)

Standard: Completes the State/Local Notification Form (Page 1 ONLY is required). The critical steps are identified below:

- Block 3: Classification: General Emergency; Declared at: actual time/date
- Block 4: EAL Number: MG1; Brief Non-Technical Description: Prolonged Loss of ALL Offsite AC Power AND Prolonged Loss of ALL Onsite AC Power (or similar)
- Block 5: Non-Routine Rad Release: None in progress
- Block 6: Meteorology: Wind direction from 90°; Wind Speed 10 mph

Comment:

Validation of Completion

Job Performance Measure No. NRC Admin SRO1

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The plant was at full power when an automatic scram occurred 30 minutes ago
2. Off-site power was lost when the scram occurred and both EDGs have failed to start and are being investigated
3. No combustion turbines have been able to supply power to the plant
4. The RPV Flooding – No ATWS EOP has been entered
5. No radiological release is in progress
6. Winds are from the East at 10 mph
7. The Shift Manager is not in the Control Room
8. No Emergency Plan Emergency Classifications have been made

Task Cue:

Assuming the duties of the Shift Emergency Director, classify the emergency and complete the required notification forms IAW procedure EP-OC-114-100, State/Local Notifications.

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Facility: Oyster CreekTask No: 3410102411Task Title: Determine Shift Operating ComplimentJob Performance Measure No: NRC Admin SRO2K/A Reference: G2.1.4 (SRO 3.4)

Examinee: _____

NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:Simulated Performance _____ Actual Performance XClassroom 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:

1. The plant is at 100% power.
2. The following list of Operations shift personnel has just come to relieve the off-going crew:

Name	Qualifications	Hours Worked in last 6 Days
Jim Abbott	SM	48
Dave Brown	US, IA	48
Bill Charles	US, STA	40
Nick Deport	RO	52
Allen Francis	RO	56
Delores Klapper	NLO, FBL	48
Todd Peterman	NLO, FB	60
Karl Ralph	NLO, FB	68
Larry Tingley	none (new to the NLO job)	52

Task Standard: The shift coverage is determined to be adequate, with the exception that Karl Ralph needs a completed Overtime Guideline Deviation Authorization form prior to exceeding 72 hours worked.

Required Materials: None

General References:

1. Tech Specs, Section 6
2. OP-OC-100, Oyster Creek Conduct of Operations, Rev. 5
3. OP-OC-100-1001, Shift Coverage Log, Rev. 5
4. LS-AA-119, Overtime Controls

Initiating Cue: Determine if the above Operations Shift Personnel meet the minimum duty shift coverage, as required by Technical Specifications, to stand and complete the watch.

Time Critical Task: No

Validation Time: 10 minutes

Simulator Setup: N/A

Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1

JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

_____ Performance Step: 2

Standard: Obtain a copy of the reference procedure and review/utilize the correct section (Tech Specs, Section 6.2.2).

Comment:

Performance Step: 3

Standard: Determines that the shift coverage is adequate, with the exception that Karl Ralph needs a completed Overtime Guideline Deviation Authorization form completed prior to exceeding 72 hours worked. (the exact form name is not required)

The candidate may decide to call-in another similarly qualified NLO in place of Karl Ralph who had fewer hours (≤ 64 hours) (this would be acceptable).

Comment:

Terminating Cue:

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin SRO2

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The plant is at 100% power.
2. The following list of Operations personnel has just come to relieve the off-going crew:

Name	Qualifications	Hours Worked in last 6 Days
Jim Abbott	SM	48
Dave Brown	US, IA	48
Bill Charles	US, STA	40
Nick Deport	RO	52
Allen Francis	RO	56
Delores Klapper	NLO, FBL	48
Todd Peterman	NLO, FB	60
Karl Ralph	NLO, FB	68
Larry Tingley	none (new to the NLO job)	52

Task Cue:

Determine if the above Operations Shift Personnel meet the minimum duty shift coverage, as required by Technical Specifications, to stand and complete the watch.

Facility: Oyster Creek Task No: _____Task Title: Review Plant Startup CheckoffJob Performance Measure No: NRC Admin SRO2

K/A Reference: _____

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:Simulated Performance _____ Actual Performance XClassroom 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:

1. The plant is shutdown with all control rods fully inserted
2. RPV coolant temperature is 120° F
3. The Reactor Mode switch is in REFUEL
4. Reactor start-up preparations are being performed IAW procedure 201, Plant Startup
5. Attachment 201-4, Primary Containment Integrity and Drywell Closure Checkoff, has been completed by the off-going Crew

Task Standard: The Checkoff has been reviewed and the discrepancies have been noted.

Required Materials: A completed Attachment 201-4

General References: Procedure 201, Plant Startup, Rev. 39

Initiating Cue: Review the completed Attachment 201-4, and make any comments to the Shift Manager.

Time Critical Task: No

Validation Time:

Simulator Setup: N/A

Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1

JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

_____ Performance Step: 2

Standard: Obtain a copy of the reference procedure and review/utilize the correct section (201, Attachment 201-4)

Comment:

Performance Step: 3 (page 2)

Standard: While reviewing the Checkoff, reports the following deficiency:

- Reactor Water Sample Valve V-24-30 is Not Operable and open. IAW the procedure, the valve should be secured in the closed position and their position indicators illuminated. (V-24-30 is an automatic containment isolation valve)

Comment:

Performance Information

Performance Step: 4 (step 6.0, page 3)

Standard: While reviewing the Checkoff, reports the following deficiency:

- There is an unauthorized Temporary Procedure Change. (Therefore, this step is not considered complete.)

Comment:

Terminating Cue: The Checkoff has been reviewed and the discrepancies have been noted.

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin SRO2

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

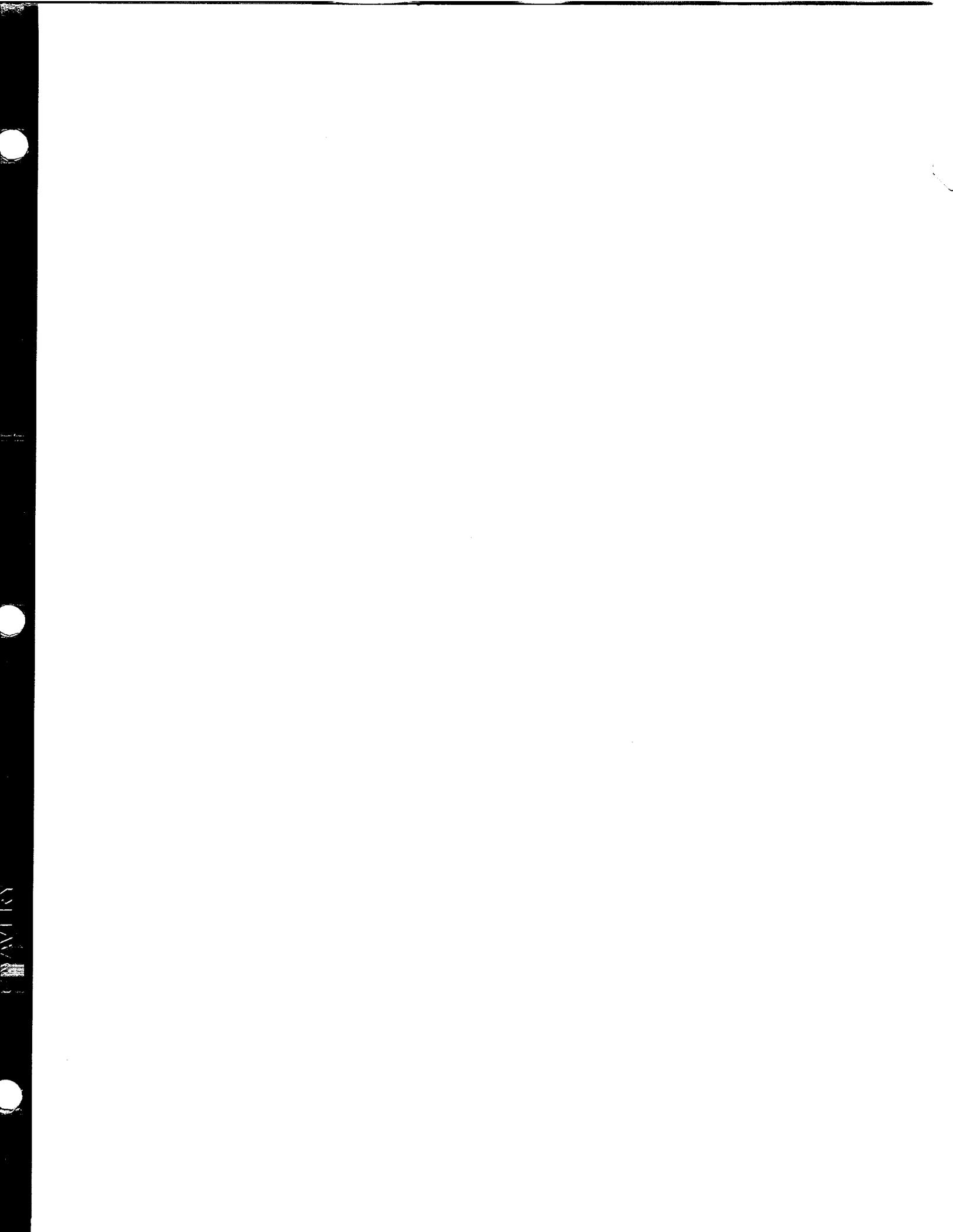
STUDENT HANDOUT

Initial Conditions:

1. The plant is shutdown with all control rods fully inserted
2. RPV coolant temperature is 120° F
3. The Reactor Mode switch is in REFUEL
4. Reactor start-up preparations are being performed IAW procedure 201, Plant Startup
5. Attachment 201-4, Primary Containment Integrity and Drywell Closure Checkoff, has been completed by the off-going Crew.

Task Cue:

Review the completed Attachment 201-4, and make any comments to the Shift Manager.



Facility: Oyster CreekTask No: 2260201402Task Title: Evaluate Acceptance Criteria Following Surveillance PerformanceJob Performance Measure No: NRC Admin SRO3K/A Reference: G2.2.12 (SRO 3.4)

Examinee: _____

NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:Simulated Performance _____ Actual Performance XClassroom 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:

1. The plant is at 100% power
2. Procedure 607.4.014, Containment Spray and ESW System 1 Pump Operability, IST, and Containment Spray Pumps Trip, has just been field completed (normal surveillance) and needs SRO review.

Task Standard: Containment Spray Pump 51A is declared inoperable (step 6.4.15) and valve V-21-18 (step 6.4.10) should either be declared inoperable or retested immediately.

Required Materials: Completed procedure 607.4.014

General References:

1. 607.4.014, Containment Spray and ESW System 1 Pump Operability, IST, and Containment Spray Pumps Trip

Initiating Cue: Perform a review of Section 7.0, Acceptance Criteria, of procedure 607.4.014, Containment Spray and ESW System 1 Pump Operability, IST, and Containment Spray Pumps Trip

Time Critical Task: No

Validation Time: 30 minutes

Simulator Setup: N/A

Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1

JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

_____ Performance Step: 2

Standard: Obtain a copy of the reference procedure and review/utilize the correct section (607.4.014, Section 7.0).

Comment:

Performance Step: 3 (step 7.1.1)

Standard: Verifies that Containment Spray Pump 51A was below the acceptable valve for discharge pressure (minimum was > 60 psig; recorded in step 6.14.5 was 59 psig). Declares Containment Spray Pump 51A inoperable and applies TS 3.4.C (not required to discuss the actual LCO).

Comment:

Performance Information

 ✓ Performance Step: 4 (step 7.1.6)

Standard: Verifies that valve V-21-18 recorded closing time (45.2 seconds) was longer than allowed by the acceptable range (32.2 – 43.5 seconds) but less than the Limiting Value (47.3 seconds) [see step 6.4.10]. As required by 7.1.9.2, the valve may either be declared inoperable or retested immediately. If declared inoperable, then applies TS 3.4.C (not required to discuss the actual LCO).

Comment:

 Performance Step: 6

Standard: All other components verified to meet the acceptance criteria.

Comment:

Terminating Cue:

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin SRO3

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The plant is at 100% power
2. Procedure 607.4.014, Containment Spray and ESW System 1 Pump Operability, IST, and Containment Spray Pumps Trip, has just been field completed (normal surveillance) and needs SRO review.

Task Cue:

Perform a review of Section 7.0, Acceptance Criteria, of procedure 607.4.014, Containment Spray and ESW System 1 Pump Operability, IST, and Containment Spray Pumps Trip.

Facility: Oyster Creek

Task No: 3430302001

Task Title: Determine Radiological Access Requirements

Job Performance Measure No: NRC Admin SRO4

K/A Reference: G2.3.1 (SRO 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:

1. The plant is at 90% power. The plant is to shutdown next week to enter a refuel outage.
2. Operations needs three more individuals to assign to the Leak Rate Team for the entire outage (scheduled to last three weeks).
3. Radiation Protection has provided historical dose accumulations for Leak rate Team members:
 - Week 1: 175 mrem
 - Week 2: 110 mrem
 - Week 3: 75 mrem
4. There are three extra Operators who will be assigned to you during the outage, as listed below:
 - Dave Carey: year-to-date exposure: 1825 mrem
 - Peter Simpson: year-to date exposure: 1410 mrem
 - Julie Davis (declared pregnant worker): year-to-date exposure: 380 mrem (340 mrem has been received since she declared her pregnancy IAW RP-AA-203, Exposure Control and Authorization)

Task Standard: The Candidate correctly states why/why not each RO can/cannot participate as a Leak Rate Team member for the entire outage.

Required Materials: None

General References:

1. RP-AA-203, Exposure Control and Authorization, Rev. 2

Initiating Cue: Determine if each listed individual can be assigned to the Leak Rate Team for the entire 3-week outage.

Time Critical Task: No

Validation Time: 18 minutes

Simulator Setup: N/A

Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1

JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

Performance Step: 2

Standard: Makes the following determinations:

1. The total dose expected for the 3-week period is (175+110+75) 360 mrem (not required for critical task).
2. If Dave Carvey received this dose, his annual dose would be 2185 mrem. This is above the administrative dose limit of 2000 mrem. This administrative limit can be raised to let Dave Carvey perform the task, but this documentation must be performed prior to Dave Carvey exceeding 2000 mrem (critical task)
3. Peter Simpson can, without any documentation, work on the Leak Rate Team for the entire period (critical task) since his total dose would remain below the same administrative dose limit (1410+360=1770<2000).
4. Julie Davis cannot join the Leak Rate Team for the entire time under any circumstance (critical task) since her total dose would be (340+360) 700 mrem. Her NRC exposure limit is only 500 mrem. This NRC limit cannot be exceeded.

Comment:

Terminating Cue:

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin SRO4

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The plant is at 90% power. The plant is to shutdown next week to enter a refuel outage.
2. Operations needs three more individuals to assign to the Leak Rate Team for the entire outage (scheduled to last three weeks).
3. Radiation Protection has provided historical dose accumulations for Leak Rate Team members:
 - Week 1: 175 mrem
 - Week 2: 110 mrem
 - Week 3: 75 mrem
4. There are three extra Operators who will be assigned to you during the outage, as listed below:
 - Dave Carey: year-to-date exposure: 1825 mrem
 - Peter Simpson: year-to date exposure: 1410 mrem
 - Julie Davis (declared pregnant worker): year-to-date exposure: 380 mrem (340 mrem has been received since she declared her pregnancy IAW RP-AA-203, Exposure Control and Authorization)

Task Cue:

Determine if each listed individual can be assigned to the Leak Rate Team for the entire 3-week outage.



Facility: Oyster CreekTask No: 3410102411Task Title: Review/Approve Manual Reactor Heat BalanceJob Performance Measure No: NRC Admin SRO5K/A Reference: G2.1.7 (SRO 4.4)

Examinee: _____

NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:Simulated Performance _____ Actual Performance XClassroom 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:

1. The Reactor is at 100% power with all systems normally aligned, except that the PPC is not available.
2. No transients are in progress.
3. Reactor water level, power, and pressure are stable.
4. Feed pump discharge pressure is 1300 psig for all three loops.
5. The Reactor Operator has just completed performing a manual reactor heat balance IAW procedure 1001.6, Core heat Balance and Feedwater Flow Calculation – Power Range. Feedwater flow was determined using Method 1.

Task Standard: Procedure 1001.6 has been reviewed and found not to be acceptable for approval as written.

Required Materials:

1. A completed procedure 1001.6, Core heat Balance and Feedwater Flow Calculation – Power Range
2. Calculator

General References: Procedure 1001.6, Core heat Balance and Feedwater Flow Calculation – Power Range, Rev. 26

Initiating Cue: Perform a review/approval of the completed procedure.

Time Critical Task: No

Validation Time: 10 minutes

Simulator Setup: N/A

Performance Information

Denote critical steps with a check mark

_____ Performance Step: 1

JPM Start Time: _____

Standard: Provides repeat back of initiating cue. *Evaluator acknowledges repeat back.*

Comment:

Performance Step: 2

Standard: Determines that step 5.2.13 (Step N in the table, Attachment 1001.6-2) is miscalculated. The fixed losses (Step L) were subtracted from Step J instead of being added to Step J.

NOTE: It is not required to correct the calculation.

Comment:

Terminating Cue: Procedure 1001.6 has been reviewed and found not to be acceptable for approval as written.

JPM Stop Time: _____

Validation of Completion

Job Performance Measure No. NRC Admin SRO5

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question:

Response:

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

STUDENT HANDOUTInitial Conditions:

1. The Reactor is at 100% power with all systems normally aligned, except that the PPC is not available.
2. No transients are in progress.
3. Reactor water level, power, and pressure are stable.
4. Feed pump discharge pressure is 1300 psig for all three loops.
5. The Reactor Operator has just completed performing a manual reactor heat balance IAW procedure 1001.6, Core heat Balance and Feedwater Flow Calculation – Power Range. Feedwater flow was determined using Method 1.

Task Cue:

Perform a review/approval of the completed procedure.