FINAL AS-ADMINISTERED WALKTHROUGH JPMS

FOR THE DRESDEN INITIAL EXAMINATION - JUNE 2002

Facility: Dresden Date of Examination: May 27, 2002

Exam Level (circle one): RO / SRO(I) / SRO(U) Operating Test No.: ILT 01-1

B.1 Control Room Systems

System / JPM Title	Type Code*	Safety Function
a. **Standby Liquid Control System** / Initiate SBLC Hard Card with RWCU valves failing to close automatically, DOP 1100-02; K/A: 211000A4.06, 3.9 / 3.9	N, A, S	(1) Reactivity Control
b. **Low Pressure Core Spray System** / CS Pump Operability Test with pump failure to meet acceptance criteria, DOS 1400-5; K/A: 209000A4.01, 3.8 / 3.6	D, S,	(2) Reactor Water Inventory Control
c. **Recirculation System** / Startup of second Recirculation Pump with failure of discharge valve to open, DOP 0202-01; K/A: 202000A4.01, 3.7 / 3.7	N, A, S, L	(4) Heat Removal from Reactor Core
d. **Main and Reheat Steam System** / Drain, Pressurize, and Open the Main Steam Lines, DOP 0250-01; K/A: 239001A4.01, 4.2 / 4.0	D, S, L	(3) Reactor Pressure Control
e. **A. C. Electrical Distribution** / Restoring Normal Feed to MCC 28-7/29-7 from Bus 29, DOP 6500-10; K/A: 262001A4.01, 3.4 / 3.7	N, S, L	(6) Electrical
f. **Rod Worth Minimizer System** / Take a Rod Out of Service, DOP 0400-02; K/A: 201006A4.06, 3.2 / 3.2	D, S	(7) Instrumentation
g. **Standby Gas Treatment System** / SBGT Post Maintenance Testing with receipt of an Auto Initiation Signal, DOS 7500-02; K/A: 261000A2.10, 3.1 / 3.2	D, A, S	(9) Radioactivity Release

B.2 Facility Walk-Through

a. **Isolation Condenser** / Isolation Condenser Makeup Pump Start with Faulted Lube Oil Pressure, DSSP 100-CR; K/A: 295016AA1.09, 4.0 / 4.0	D, A	(4) Heat Removal from Reactor Core
b. **Reactor Protection System** / Transfer RPS to Reserve Power Supply, DOP 0500-03; K/A: 212000K4.03, 3.0 / 3.1	D	(7) Instrumentation
c. **Instrument Air System** / Unit 2/3 Instrument Air Cross-Connect Operation, DOP 4700-03; K/A: 295019AA1.02, 3.3 / 3.1	D, R	(8) Plant Service Systems

* Type Codes: (D)irect from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow-Power, (R)CA

NRC Copy with changes from validation

Exelon
Nuclear

Nuclear Generation Group

Job Performance Measure

Injection with SBLC

JPM Number: B.1.a

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 NSO.
2. The Unit Supervisor has ordered a manual scram due to a feedwater transient.
3. The reactor failed to scram when the manual pushbuttons **AND** ARI pushbuttons were depressed and the Mode Switch was placed in Shutdown, placing the Unit in and ATWS condition.
4. Unit Supervisor has authorized Hard Cards and announced that Transient Annunciator Response is in effect.
5. Torus temperature is 108°F AND rising.

INITIATING CUE

1. The Unit Supervisor has ordered you to inject SBLC.
2. Inform the Unit Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information for Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*1.	Place the SBLC INJECTION CONTROL keylock switch to SYS 1 & 2 or SYS 2 & 1 position.	OPERATES SBLC INJECTION CONTROL keylock switch.	___	___	___
*2.	Verify the following RWCU valves close: • 2-1201-1 • 2-1201-1A • 2-1201-2 • 2-1201-3 • 2-1201-7	Closes the following valves: • 2-1201-1 • 2-1201-1A • 2-1201-2 • 2-1201-3 • 2-1201-7	___	___	___
	Note: The RWCU valves will have failed to close automatically and the student must close them manually				
3.	Verify: • Amber SQUIB A AND SQUIB B pilot lights NOT LIT. • PUMP 1 AND PUMP 2 pilot lights lit. • FLOW pilot light lit. • SBLC SQUIB VLV CKT FAILURE annunciator alarms (902-5 H-6).	VERIFIES SBLC System INJECTING.	___	___	___
4.	Notifies Unit Supervisor that SBLC System is Injecting	Examinee notifies the Unit 2 Supervisor.	___	___	___
	CUE: Report acknowledged. The JPM is considered complete at this time.				

JPM Stop Time: _____

Exelon
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Nuclear Generation Group

Job Performance Measure

Core Spray Pump Operability Test UNSAT

JPM Number: B.1.b

Revision Number: 02

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. The Unit 2 Core Spray operability surveillance is due and the 2A Core Spray pump test has been completed.
2. DOS 1400-05 has been completed up to and including Step I.6.
3. Unit 2 NLO is standing by in the corner room.
4. LPCI/Core Spray Room Coolers are running.
5. The System Engineer is taking extra data at the Core Spray pumps.
6. You are the Unit 2 Assistant NSO.
7. 2B Core Spray System has been declared inoperable due to testing.

INITIATING CUE

1. The Unit Supervisor directs you to complete DOS 1400-05 for the 2B Core Spray pump, starting at step I.7.a. up to and including Step I.7.r
2. Leave the 2B Core Spray pump running for the System Engineer.
3. Complete Data Sheet 1 for this surveillance.
4. Inform the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note:	Provide examinee with a marked up copy of DOS 1400-05 with Data sheet 1.				
Note:	The examinee should begin the surveillance at Step I.7				
1.	Verify the following valve line up. • MO 2-1402-4B, CLOSED • MO 2-1402-38B, OPEN • 2-1402-6B, OPEN • MO 2-1402-25B, CLOSED • MO 2-1402-3B, OPEN • 2-1402-40B-SV, CLOSED	• Verifies Green Closed light • Verifies Green Open light • Verifies Green Open light • Verifies Green Closed light • Verifies Green Open light • Contacts the NLO to verify position of valve.	___	___	___
CUE:	Unit 2, 2-1402-40B INST SV is closed.				
2.	Verify 2B CORE SPRAY MOTOR has adequate lubrication and records results on Data Sheet 1	Contacts NLO to verify proper oil level.	___	___	___
CUE:	Report as NLO that 2B CORE SPRAY motor oil level is at Oil Sightglass standstill line.				
3.	Verify 2B LPCI/CS Room Cooler is operating properly.	Contacts NLO to verify proper room cooler operation.	___	___	___
CUE:	Unit 2B LPCI/CS room cooler is operating normally.				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
4.	Directs EA to open 2-1402-40B-SV and report pressure.	Directs SV 2-1402-40B open.	___	___	___
CUE:	Unit 2, 2-1402-40B INST SV is OPEN. Pressure is 7 psig.				
Note:	Evaluator may act as Verifier.				
5.	Calculates 2-1402-8B initial closed dp.	Obtains Disch. Pressure from 902-3 panel PI-2-1450-1B. 2-1450-1B, ~90 psig - 2-1402-40B, 7 psig ~83 dp Initial	___	___	___
*6.:	Close PP DISCH VLV,MO 2-1402-24B	Closes MO 2-1402-24B.	___	___	___
*7.	Start 2B CORE SPRAY Pump.	Starts 2B Core Spray Pump.	___	___	___
Note:	May notify the NLO starting the pump and may flag annunciators H-13 and A-5				
8.	Verify alarms • 902-3 H-13, LPCI/CS PP AT PRESS • 902-3 A-5, CORE SPRAY PP RUNNING.	902-3 B panel H-13 in alarm. 902-3 A panel A-5 in alarm.	___	___	___
Note:	If operator requests another NSO to track the time the evaluator may perform this function.				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*9.	Open FLOW TEST VLV MO 2-1402-4B.	MO 2-1402-4B Red Open light. Tracks time throttled open.	___	___	____
10.	Verify MIN FLOW VLV MO 2-1402-38B closes.	Verifies MO 2-1402-38B closes.	___	___	____
Note:	May terminate surveillance as soon as candidate recognizes failure of pump. This could happen before the flow rate of 4600 to 4650 gpm is achieved.				
*11.	THROTTLE MO 2-1402-4B to obtain a flow rate of 4600 to 4650 gpm.	MO 2-1402-4B Throttled (double indication) to 4600 to 4650 GPM on FI 2-1450-4B.	___	___	____
*12.	Recognizes that 2B CS pump will not meet Acceptance Criteria and reports to Unit Supervisor.	Unit Supervisor informed of Acceptance Criteria failure.	___	___	____
CUE:	I understand 2B CS pump does not meet DOS 1400-05 Flow Rate Acceptance Criteria. Leave the 2B Core Spray Pump running for the System Engineer. We will terminate the surveillance. The JPM is considered complete at this time.				

JPM Stop Time: _____

Exelon SM
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Nuclear Generation Group

Job Performance Measure

Startup of second Recirculation Pump with failure of discharge valve to open

JPM Number: B.1.c

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. 2B Recirc Pump was inadvertently tripped one (1) hour ago due to personnel error.
2. The immediate actions of DOA 0202-01 have been completed.
3. All prerequisites of DOP 0202-01 have been met.
4. Seal Purge to the 2B Recirc Pump has been established.
5. DOP 0202-01 has completed up to and including step G.4.

INITIATING CUE

1. You have been directed by the Unit 2 Supervisor to restart the 2B Recirc Pump IAW DOP 0202-01 starting at step G.5.
2. Inform the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Verify MO 2-202-5B, 2B PP DISCH VLV, is CLOSED AND C/S is in the NORM position.	MO 2-202-5B Red Closed light AND C/S is in the NORM position.	___	___	____
*2.	Start the 2B MG by holding 2B MG SET DRIVE MOTOR switch in START for 3 seconds.	Turns 2B M-G Set Drive Motor Control switch to START and holds for 3 seconds.	___	___	____
3.	Observe the following:	Observes or monitors the following:	___	___	____
	• MG set Closed indicator comes on	• 2B M-G Set Drive Motor Blue On light illuminated.			
	• Speed meter rises to a peak of 60% to 80%.	• Monitors speed on Percent speed meter.			
	• MG Field breaker CLOSES seven seconds after MG DRIVE MOTOR breaker closes.	• MG Field breaker Blue Closed light illuminated.			
	• % Speed meter settles out and then decays to approximately 28%	• Monitors speed on Percent speed meter.			

Note: IF dual valve position indication is NOT obtained within 2 minutes of pump start, THEN trip the Recirc Pump.

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
4.	While observing APRM response AND Recirc loop flow indications after each individual open step (jog), perform the following: • Open, MO 2-202-5B, 2B PP DISCH VLV, just to the point of dual valve position indication.	Attempts to OPEN MO 2-202-5B, 2B PP DISCH VLV by one of the following: • Throttling open with 2B PP DISCH VLV Control switch. OR • Jog open by using 2B PP DISCH VLV Jog control.	___	___	____
Note:	The MO 2-202-5B, 2B PP DISCH VLV, will NOT OPEN		___	___	____
*5.	If dual valve position indication is NOT obtained within 2 minutes of pump start, THEN trip the recirc pump.	Trips 2B Recirc Pump within 2 minutes	___	___	____
6	Reports to the Unit 2 Supervisor that the MO 2-202-5B, 2B PP DISCH VLV, did not have dual indication and the 2B Recirc Pump was tripped.	Unit 2 Supervisor notified.	___	___	____
CUE:	Acknowledge report. The JPM is considered complete at this time.				

JPM Stop Time: _____

Exelon SM
Nuclear

Nuclear Generation Group

Job Performance Measure

Draining and Pressurizing the Main Steam Lines

JPM Number: B.1.d

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Unit 2 has just been stabilized following the initiation of a Group 1 isolation and subsequent scram during plant startup/heatup.
2. An IM has just notified the Shift Manager that he bumped the steam line pressure switch rack on the corner room landing causing the Group 1 isolation.
3. Reactor level is normal (+30"), the turbine stop valves are closed, and the scram and Group 1 isolations have been reset.
4. The Main Steam Lines were NOT flooded during the event.

INITIATING CUE

The Unit 2 Unit Supervisor has directed you to drain and pressurize the main steam lines in accordance with DOP 0250-01.

Notify the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

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The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note:	Steps 1-3 are at the 902-3 panel				
*1.	OPEN MO 2-220-4, MSL DRN TO CONDR.	Opens MO 2-220-4	___	___	___
*2.	OPEN Outboard MSIVs: • AO 2-203-2A • AO 2-203-2B • AO 2-203-2C • AO 2-203-2D	Opens all 4 outboard MSIVs	___	___	___
*3.	OPEN MSL DRN VLVs: • MO 2-220-1 • MO 2-220-2 • MO 2-220-3	Opens all 3 MSL DRN VLVs	___	___	___
Note:	Steps 4-5 are at the 902-7 panel				
*4.	OPEN CONTROL VLVS ABOVE SEAT DRNS • MO 2-3004A • MO 2-3004B • MO 2-3004C • MO 2-3004D	Opens the CONTROL VLVS ABOVE SEAT DRNS.	___	___	___
*5.	Open MO 2-3005, MSL LEAD DRN VLV.	Opens the MSL LEAD DRN VLV.	___	___	___
Note:	Step 6-8 are at the 902-3 panel				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*6.	OPEN MSL DRN VLVS • MO 2-220-90A • MO 2-220-90B • MO 2-220-90C • MO 2-220-90D	Opens the MSL DRN VLVS	___	___	___
Note:	Time compression is used for draining the steam lines. When valves are open give the following cue.				
CUE:	Inform examinee that lines are drained .				
7.	Verify the following valves are CLOSED (Inboard MSIVs): AO 2-203-1A AO 2-203-1B AO 2-203-1C AO 2-203-1D	Verifies Inboard MSIVs are closed.	___	___	___
8.	Verify the following valves are OPEN (Outboard MSIVs): • AO 2-203-2A • AO 2-203-2B • AO 2-203-2C • AO 2-203-2D	Verifies Outboard MSIVs are open.			
Note:	Steps 9-10 are at the 902-7 panel				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*9.	Close CONTROL VLVS ABOVE SEAT DRNS • MO 2-3004A • MO 2-3004B • MO 2-3004C • MO 2-3004D	Closes the CONTROL VLVS ABOVE SEAT DRNS	___	___	___
*10.	Close MO 2-3005, MSL LEAD DRN VLV	Closes the MSL LEAD DRN VLV	___	___	___
Note:	Step 11-13 are at the 902-3 panel				
11.	Verify OPEN the following MSL DRN VLVs to condenser: • MO 2-220-90A • MO 2-220-90B • MO 2-220-90C • MO 2-220-90D	Verifies the valves open	___	___	___
12	Verify OPEN MSL DRN VLVs: • MO 2-220-1 • MO 2-220-2 • MO 2-220-3	Verifies the valves open	___	___	___
*13.	Close MO 2-220-4 (MSL DRN VLV).	Closes the MSL DRN VLV			

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
14.	Verify differential pressure is equalized to less than 70 psid across the MSIVs by comparing reactor pressure (902-5 panel) to turbine throttle pressure (902-7 panel).	Determines differential pressure less than 70 psid by comparing. 902-5 panel PI-2-640-27 (RPV pressure) TO 902-7 panel PI-2-3040 (Turbine throttle pressure)	___	___	___
CUE:	If examinee uses computer point T200 give them a turbine throttle pressure that is 30 psig less than RPV pressure. (The meter is over ridden but the computer point can not be over ridden)				
Note:	Step 15 is at the 902-3 panel				
*15.	Open Inboard MSIVs AO 2-203-1A AO 2-203-1B AO 2-203-1C AO 2-203-1D	Opens the following valves with less than 70 psid: • AO 2-203-1A • AO 2-203-1B • AO 2-203-1C • AO 2-203-1D	___	___	___
Note:	Steps 16 and 17 are at the 902-7 panel				
*16.	OPEN CONTROL VLVS ABOVE SEAT DRNS. • MO 2-3004A • MO 2-3004B • MO 2-3004C • MO 2-3004D	Opens the CONTROL VLVS ABOVE SEAT DRNS.	___	___	___

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*17.	Open MO 2-3005, MSL LEAD DRN VLV.	Opens the MSL LEAD DRN VLV.	___	___	____
18.	Report to Unit 2 Supervisor that the main steam lines are drained and pressurized.	Examinee verbally reports to Unit 2 Supervisor that the main steam lines are drained and pressurized	___	___	____

CUE: Report acknowledged.

The JPM is considered complete at this time.

JPM Stop Time: _____

Exelon SM
Nuclear

Nuclear Generation Group

Job Performance Measure

Restoring Normal Feed to MCC 28-7/29-7 from Bus 29

JPM Number: B.1.e

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. MCC 28-7/29-7 is powered from Bus 28.
2. Power has been restored to Bus 29.
3. You are the Unit 2 Assistant NSO.

INITIATING CUE

You have been directed by the Unit Supervisor to restore the normal feed to MCC 28-7/29-7 per DOP 6500-10

Notify the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

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Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*1.	Open the feed breaker from Bus 28, MCC 29-7/28-7 FEED FROM BUS 28, by placing control switch in TRIP AND maintain switch in TRIP.	Opens the feed breaker AND maintains the switch in TRIP.	___	___	____
* 2.	Close feed breaker from Bus 29, MCC 29-7/28-7 FEED FROM BUS 29.	Closes the feed breaker	___	___	____
3.	Release feed breaker from Bus 28, MCC 29-7/28-7 FEED FROM BUS 28, control switch.	Releases feed breaker control switch	___	___	____
4.	Notify the Unit 2 Supervisor that normal feed has been restored to MCC 28-7/29-7.	Unit 2 Supervisor notified.	___	___	____

CUE: Report acknowledged.

The JPM is considered complete at this time.

JPM Stop Time: _____

Exelon
Nuclear

Nuclear Generation Group

Job Performance Measure

Take a Rod Out of Service

JPM Number: B.1.f

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Control rod B-10 was discovered uncoupled. All attempts to couple the rod per DOA 0300-5 were unsuccessful. The control rod was then inserted to position 00 and electrically disarmed. The Control rod was tagged and logged per DOS 0300-06 and a QNE has been notified.

2. You are the Unit 2 NSO.

INITIATING CUE

You have been directed by the Unit 2 Supervisor to take rod B-10 out of service on the Rod Worth Minimizer per DOP 0400-02, "Rod Worth Minimizer" Step G.3.c.(2).

Notify the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

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Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE:	Provide examinee with a copy of DOP 0400-02.				
1.	A maximum of eight Control Rods may be taken Out-Of-Service.	Verifies eight or less rods OOS.	___	___	____
*2.	From the primary display screen, touch the area marked SECONDARY FUNCTION	Selects SECONDARY FUNCTIONS on RWM screen.	___	___	____
*3.	Touch the area marked ROD OUT OF SERVICE.	Selects ROD OUT OF SERVICE on RWM screen.	___	___	____
*4.	Select the proper control rod on the touch screen by touching its position indication on the screen.	Control rod B-10 position indication outlined with blue box and shown on RWM screen as SELECTED.	___	___	____
5.	Visually verify that the selection is correct.	Verifies rod B-10 is selected.	___	___	____
*6.	If the selection is correct, confirm the request by touching the ENTER REQUEST box.	Touches ENTER REQUEST	___	___	____
Note:	The rod is already at position 00 so the student will NOT need to move the rod.				
7.	Touch the EXIT FUNCTION box to return to the Main Display.	RWM returns to Main Display.	___	___	____
Note:	The next step is optional				
8.	May select rod B-10 to ensure rod in and out blocks are applied.	Selects rod B-10 and acknowledges rod block alarm.	___	___	____

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
9.	Notify Unit 2 Supervisor that rod B-10 has been taken Out-Of-Service.	Notifies Unit 2 Supervisor.	___	___	___

CUE: Acknowledge report.

The JPM is considered complete at this time.

JPM Stop Time: _____

Exelon
Nuclear

Nuclear Generation Group

Job Performance Measure

SBGT Post Maintenance Testing with receipt of an Auto Initiation Signal

JPM Number: B.1.g

Revision Number: 01

Date: 05/07/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. 2/3B SBGT train is operable and 2/3A SBGT train is in day 2 of a 7 day LCO per ITS 3.6.4.3 Action A.

2. The minor maintenance has been completed on the 2/3 A SBGT train and the train is back in service.

3. The prerequisites of DOS 7500-02 have been completed and IST testing is NOT required.

4. The Initial Cumulative Run Time has been recorded.

INITIATING CUE

The Unit 2 Supervisor has directed you to perform DOS 7500-02 for the 2/3A SBGT train.

Notify the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

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Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number

1.	Ensure the following:
	• 2/3 A and B AIR HEATERs are OFF.
	• 2/3 A and B Fans are OFF.
	• The following Annunciators are not in alarm:
	  • 923-5 A-6, STBY GAS TRT SYS A TROUBLE
	  • 923-5 B-6, STBY GAS TRT SYS B TROUBLE
		Correctly verifies.	___	___	___

*2.	Verify "B" SBGT SELECT SWITCH in STBY position.	Places 2/3 B SBGT SELECT switch in STBY.	___	___	___
*3.	Place "A" SBGT SELECT SWITCH to START position	STARTS "A" SBGT.			
4.	Records the Initial Run Time data for SBGT Train "A" on Checklist A.	Record the Initial Run Time data for SBGT Train "A" on Checklist A.	___	___	___
5.	Verifies the 2/3A SBGT train initiated properly. NOTE: After he has checked a few items, **IMF CIGP2I** (Inserts a spurious Group II isolation).	Recognizes a SBGT auto initiation has occurred and needs to perform the required Limitation and Action steps.	___	___	___
*6.	Place the SELECT SWITCH for the non-running train to PRI.	Places the SELECT SWITCH for "B" SBGT train to PRI.	___	___	___
*7.	Place the control switch for the train under test to OFF.	Places the control switch for "A" SBGT train to OFF.	___	___	___

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
8.	Verify train in PRI has sufficient flow and the heater is operating.	Correctly verifies.	___	___	____
*9.	Place the Train previously under test to STBY.	Places the control switch for "A" SBGT train to STBY.			
10.	Verifies a Reactor Building Isolation has occurred on Panel 923-4.	Uses the Limitation and Action section or any other appropriate procedure to verify the Reactor Building Isolation.			
11.	Notifies Unit Supervisor of the change in status of the surveillance.	Unit Supervisor notified.	___	___	____

CUE: Report acknowledged.

The JPM is considered complete at this time.

JPM Stop Time: _____

Exelon SM
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Nuclear Generation Group

Job Performance Measure

Isolation Condenser Makeup Pump Start

JPM Number: B.2.a

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Smoke in the Control Room has led to a control room evacuation.
2. The Unit 2 Isolation Condenser is in service and makeup to the shell side is required.
3. Valve 2-4399-74 valve (ISOL CDSR CLEAN DEMIN WTR FILL VLV) is open.
4. The 2/3 Makeup Demineralizers are secured.

INITIATING CUE

You have been directed by the Unit 2 Supervisor to start an isolation condenser makeup pump in accordance with DSSP 100-CR, Attachment I (India).

Inform the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Obtain CB-1 or CB master key for entry into the IC Makeup Pump Room.	CB-1 or CB master key obtained and IC Makeup Pump Room entered.	___	___	____
*2.	Place REMOTE-OFF-RUN toggle switch on Engine Control Panel 2223-126A(B) in RUN.	The REMOTE-OFF-RUN toggle switch at Panel 2223-126A(B) is placed in RUN.	___	___	____
	CUE: If operation of the correct switch was correctly described, then "the engine has started."				
3.	Verify engine starts and comes to stable speed using RPM meter on Local Panel 2223-126A(B).	Engine start verified using RPM meter on Panel 2223-126A(B).	___	___	____
	Note: The indicator to check is a LCD display. When the engine is running the parameters constantly scroll on the screen. With the engine shutdown the parameters will not be displayed.				
	CUE: If engine RPM is being checked correctly, then "meter is reading 900 rpm and steady."				
*4.	Verify engine oil pressure is ≥ 20 psi on Panel 2223-126A(B) indicator.	Engine oil pressure checked on Panel 2223-126A(B) indicator.	___	___	____
	CUE: If indicator is being checked correctly, then "oil pressure is 15 psi and water temperature is 165°F."				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note:	With oil pressure less than 20 psi (on Panel 2223-126A(B) indicator), the examinee should immediately stop the 2/3-43122A(B), IC Makeup Pump and then start the 2/3-43122B(A), IC Makeup Pump.				
*5.	Place REMOTE-OFF-RUN toggle switch on Engine Control Panel 2223-126A(B) in OFF.	The REMOTE-OFF-RUN toggle switch at Panel 2223-126A(B) is placed in OFF.	___	___	____
CUE:	If operation of the correct switch was correctly described, then "the engine has stopped."				
*6.	Place REMOTE-OFF-RUN toggle switch on Engine Control Panel 2223-126B(A) in RUN.	The REMOTE-OFF-RUN toggle switch at Panel 2223-126B(A) is placed in RUN.	___	___	____
CUE:	If operation of the correct switch was correctly described, then "the engine has started."				
7.	Verify engine starts and comes to stable speed using RPM meter on Local Panel 2223-126A(B).	Engine start verified using RPM meter on Panel 2223-126A(B).	___	___	____
CUE:	If engine RPM is being checked correctly, then "meter is reading 1900 rpm and steady."				
*8.	Verify engine oil pressure is ≥ 20 psi on Panel 2223-126B(A) indicator.	Engine oil pressure checked on Panel 2223-126B(A) indicator.	___	___	____

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE:	If indicator is being checked correctly, then "oil pressure is 60 psi and water temperature is 160°F."				
9.	Monitor engine parameters to ensure limits are NOT exceeded.	Engine parameters monitored to ensure limits are NOT exceeded.	___	___	___
CUE:	If indicators are being checked correctly, then Lube oil pressure is 60 psi. Water temp is 160°F. Engine RPM is 1900.				
10.	Notify Unit 2 Supervisor that an IC Makeup Pump is running.	Unit 2 Supervisor notified.	___	___	___
CUE:	Acknowledge report. The JPM is considered complete at this time.				

JPM Stop Time: _____

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Job Performance Measure

Transfer RPS to the Reserve Power Supply

JPM Number: B.2.b

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Unit 2 was at 70% power when the 2A RPS MG Set tripped.
2. MCC's 25-2, 28-2 and 29-2 are ALL energized.
3. The Load Dispatcher has been notified that Unit 2 RPS is to be transferred and there is a possibility of a reactor scram.
4. The Gaseous Effluent Monitoring systems are in service.
5. Scram Fuse integrity is complete (2202-22A thru H)

INITIATING CUE

You have been directed by the Unit 2 Supervisor to transfer the Unit 2 RPS Bus B from its NORMAL to RESERVE power supply in accordance with DOP 0500-03, "RPS Power Supply Operation", Step G.3.

Inform the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

Some operations that are performed from outside of the control room may require multiple steps. These items may be listed as individual steps in this JPM. It is acceptable for the candidate to direct the local operator to perform groups of procedure steps instead of calling for each individual item to be performed.

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note:	Provide examinee with a current copy of DOP 0500-03. Steps 1 and 2 can be performed in reverse order.				
1.	Obtain key (#209 for Unit 2) for RPS Reserve Power Supply Key Operated Interlock from the WEC.	Key #209 obtained.	___	___	____
2.	Verify all applicable prerequisites have been satisfied. • Power available to MCC 25-2 • Load Dispatcher notified • Gaseous Effluent Monitoring Systems in service • Scram Fuse integrity is complete	Prerequisites verified (supplied in Initial Conditions).	___	___	____
*3.	Verify the following breakers are closed:				
	• MCC 25-2 Breaker A4, 2-500 RX PROTECTION SYS BUSES RESERVE FEED	Breaker verified closed.	___	___	____
	• MCC 25-2 Breaker A5, 2-500 RX SAFETY SYS & INST BUS BACKUP TRANSFORMER	Breaker verified closed.	___	___	____

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note:	The following is performed in the Auxiliary Electrical Equipment Room.				
4.	Verify POWER IN, RPS RESERVE FEED red indicating light ON at EPA Relay 2AB-1.	Red indicating light verified ON.	___	___	____
5.	Verify the following indicating lights are OFF at EPA Relay 2AB-1. • OVER VOLTAGE • UNDER VOLTAGE • UNDER FREQUENCY	Indicating lights verified OFF.	___	___	____
*6.	Close breaker on EPA Relay 2AB-1.	Breaker closed on EPA Relay 2AB-1.	___	___	____
CUE:	The breaker is in the position you described.				
7.	Ensure POWER OUT, RPS BUS red indicating light ON at EPA Relay 2AB-1.	Red indicating light ON.	___	___	____
CUE:	The light is in the condition you described.				
8.	Verify POWER IN, RPS RESERVE FEED red indicating light ON at EPA Relay 2AB-2.	Red indicating light ON.	___	___	____
CUE:	The light is in the condition you described.				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
9.	Verify the following indicating lights are OFF at EPA Relay 2AB-2. • OVER VOLTAGE • UNDER VOLTAGE • UNDER FREQUENCY	Indicating lights verified OFF.	___	___	___
	CUE: The lights are in the condition you described.				
*10.	Close breaker on EPA Relay 2AB-2.	Breaker closed on EPA Relay 2AB-2.	___	___	___
	CUE: The breaker is in the position you described.				
11.	Ensure POWER OUT, RPS BUS red indicating light ON at EPA Relay 2AB-2.	Red indicating light ON.	___	___	___
	CUE: The light is in the condition you described.				
12.	Notify control room of supplying power to RPS Bus.	Control room notified of supplying power to RPS Bus B.	___	___	___
	CUE: Report acknowledged.				
	Note: Step G.3.l is skipped.				
13.	Bypass APRM #1	Contacts control room to have the control room bypass APRM #1			
	CUE: APRM # 1 is bypassed				
*14.	Unlock FROM MCC 25-2 RPS BUS RESERVE breaker.	FROM MCC 25-2 RPS BUS RESERVE breaker unlocked.	___	___	___

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
CUE:	The breaker is in the condition you described.				
*15.	Open 2A M-G SET FEED TO 2B RPS BUS NORMAL breaker.	2B M-G SET FEED TO 2A RPS BUS NORMAL breaker opened.	___	___	___
CUE:	The breaker is in the condition you described.				
*16.	Wait 1 second, then close FROM MCC 25-2 RPS BUS RESERVE breaker.	FROM MCC 25-2 RPS BUS RESERVE breaker closed after a 1 second wait.	___	___	___
CUE:	The breaker is in the condition you described.				
*17.	Stop RPS MG A by taking MOTOR STARTING switch to TRIP.	RPS MG B stopped by taking MOTOR STARTING switch to TRIP.	___	___	___
CUE:	The switch is in the condition you described.				
CUE:	If switch correctly positioned, then "the RPS MG has stopped."				
18.	Place VOLTMETER TRANSFER switch in BUS.	VOLTMETER TRANSFER switch placed in BUS.	___	___	___
CUE:	The switch is in the condition you described.				
19.	Verify AC VOLTS is 111 to 123 volts.	AC VOLTS verified between 111 to 123 volts.	___	___	___
CUE:	If correct meter read, then "meter reads 120 volts," otherwise "meter reads as is."				

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
Note:	Examinee could inform control that transfer of RPS Bus B is complete through step G.3.o at this time and the rest of the procedure needs to be completed in the control room. If this occurs go to Step 22 of the JPM				
Note:	If examinee inquires if jumpers were installed provide the following cue.				
CUE:	No jumpers were installed.				
20.	Directs control room to remove APRM # 1 from bypass.	Informs control room that APRM # 1 can be removed from bypass.	___	___	___
CUE:	Report as Unit 2 NSO that: APRM #1 has been removed from bypass.				
21.	Informs control room to complete step G.3.r	Informs control room to complete step G.3.r	___	___	___
CUE:	Report as Unit 2 NSO that: Step G.3.r is complete.				
22.	Notify Unit 2 Supervisor that RPS Bus B has been transferred to Reserve Power.	Unit 2 Supervisor notified.	___	___	___
CUE:	Acknowledge report. The JPM is considered complete at this time.				

JPM Stop Time: _____

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Nuclear Generation Group

Job Performance Measure

Crosstie Unit 2 and Unit 3 Instrument Air Headers

JPM Number: B.2.c

Revision Number: 00

Date: 03/13/02

Developed By: _____ _____
Facility Author **Date**

Approved By: _____ _____
Facility Representative **Date**

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Unit 3 is shutdown for a refueling outage.
2. Unit 2 is at 100% power and is experiencing an Instrument Air transient causing the Unit 2 Instrument Air header pressure to drop slowly.
3. The Unit 2 Service Air to Instrument Air cross-tie valve is open and the Unit 2 Instrument Air header pressure is still dropping slowly.
4. The Shift Manager has given permission to carry out "cross-connect" operations.
5. The Instrument Air system is aligned in accordance with Figure 1, "Instrument Air Turbine Building Plan View" of DOP 4700-03.

INITIATING CUE

You have been directed by the Unit 2 Supervisor to cross-connect the Unit 2 and Unit 3 Instrument Air headers by opening BOTH the North and South Instrument Air header cross-tie valves in accordance with DOP 4700-03.

Appropriate portions of DOP 4700-03, steps G.1 through G.7 have been completed.

Inform the Unit 2 Supervisor when the task is complete.

Fill in the JPM Start Time when the student acknowledges the Initiating Cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Proceed to Step G.8 in DOP 4700-03.	Proceeds to Step G.8.	___	___	____
	Note: Steps 2 and 3 may be performed in any order.				
	Note: Valve 2-4705-330 is located north of the 2B Instrument Air Compressor.				
*2.	Open 2-4705-330, U2 INST AIR SYS XTIE VLV TO/FROM THE U3 INST AIR SYS.	Valve 2-4705-330 is OPEN.	___	___	____
	CUE: The valve is in the position you described.				
	Note: Valve 3-4712-501 is located near the stairs to the TBCCW pumps.				
*3.	Open 3-4712-501, U2 INST AIR SYS XTIE VLV TO/FROM THE U3 INST AIR SYS.	Valve 3-4712-501 is OPEN.	___	___	____
	CUE: The valve is in the position you described.				
4.	Notify the Unit 2 Supervisor that both the North and South Instrument Air header crosstie valves are open.	Unit 2 Supervisor notified.	___	___	____
	CUE: Acknowledge report. The JPM is considered complete at this time.				

JPM Stop Time: _____