

# PSEG Nuclear LLC

## Job Performance Measure

### Start the SBO Air Compressor IAW AB.LOOP-1

JPM Number: 21-01 NRC IP-i

Revision Number: 1

Date: 10/14/2022

<b>Developed By:</b>	<u>K. Hantho</u> Instructor	<b>Date:</b>	<u>10/14/22</u>
<b>Validated By:</b>	<u>N/A (see revision comment)</u> SME or Instructor	<b>Date:</b>	<u>11/28/22</u>
<b>Reviewed By:</b>	<u>M. Winkelspecht</u> Operations Representative	<b>Date:</b>	<u>11/29/22</u>
<b>Approved By:</b>	<u>M. Wadusky</u> Training Department (Print/Sign)	<b>Date:</b>	<u>11/29/22</u>

## REVISION RECORD (Summary)

<b>Revision Number</b>	<b>Date</b>	<b>Reason</b>
01	11/28/22	Converted to new JPM template. No validation required since previously used during annual exams and procedure has not changed since last use.



## **SIMULATOR SETUP INSTUCTIONS**

1. None, this is an In-plant JPM.

## **SPECIAL INSTRUCTIONS**

- **This JPM is NOT located inside the RCA.**
- **Need L-3 key to unlock SBO Compressor Building**

### INITIAL CONDITIONS

- Both Salem Units have tripped due to a loss of off-site power. Equipment problems have resulted in NO Emergency Control Air Compressors (ECACs) running.

### INITIATING CUE

- The Unit 2 CRS has directed you to start the Station Blackout Compressor (SBO) IAW SC.OP-SO.CA-0001, SBO Diesel Control Air Compressor, starting with Step 5.1.3.
- The Component Off Normal and Off Normal Tagged review has been performed SAT.
- It is **NOT** the summer operating period.
- The inspection covers have already been removed, Step 5.1.1 was performed SAT, and the inspection covers replaced IAW Step 5.1.2

**TASK STANDARD:**

The task is satisfactorily met when the applicant starts the SBO Diesel Control Air Compressor IAW step 5.1.10 of SC.OP-SO.CA-0001, aligns the discharge to the air headers IAW steps 5.1.13 thru 5.1.15 of SC.OP-SO.CA-0001, and loads the compressor IAW step 5.1.16 of SC.OP-SO.CA-0001.

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**Information for Evaluators Use:**

UNSAT requires written comments on the respective step.

**(\*) Denotes critical steps**

If Time Critical, estimated time is the Time Critical time.

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 time clock starts when the candidate acknowledges the initiating cue.

**RECORD JPM Start Time:** \_\_\_\_\_

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
N/A		<b>RECORD</b> the JPM Start Time when the operator acknowledges READY TO START JPM.		N/A

**Cue: READ TO APPLICANT:** No plant controls or equipment are to be operated during the performance of this JPM. All actions taken by the examinee should be clearly demonstrated and verbalized to the evaluator.

**Examiners Note:** The candidate may wish to review all P&Ls prior to start.

Comments: N/A

N/A		Provide marked up copy of the SC.OP-SO.CA-0001, SBO Diesel Control Air Compressor with Prerequisites signed off. Additionally, Step 5.1.1 for removing Inspection Covers will be previously completed, as will Step 5.1.2 to re-install inspection covers.	Operator reviews and signs Precautions and Limitations.  Operator <u>must</u> address obtaining hearing protection per P&L 3.1  All other P&Ls require no action other than reading and initialing with the exception of P&L 3.10 is verified at the SBO.	N/A
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**Cue:**

Examiners Note: None

Comments:

5.1.3		<b>OPEN</b> both Engine intake louvers (located outside building on west wall.)	<b>Locates louvers and demonstrates how to open.</b>	
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**Cue: After locating and describing how to open Engine intake louvers, state that the Engine intake louvers are open.**

Examiners Note: None

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
5.1.4		<b>OPEN</b> 1CA1920, BLACKOUT AIR COMPRESSOR DRAIN VALVE, to drain any water accumulation, then CLOSE 1CA1920.	Since the cue would be the same whether or not the drain cap was removed (nothing came out the end of pipe) only comment here for review if pipe cap was not removed.	

**Cue: After locating 1CA1920, BLACKOUT AIR COMPRESSOR DRAIN VALVE, and describing how to open, including that the drain cap must be removed, state 1CA1920, BLACKOUT AIR COMPRESSOR DRAIN VALVE, has been cycled and no water came out of pipe.**

Examiners Note: None

Comments:

5.1.5		<b>OPEN</b> 2FZSBO10, BATTERY CHARGER, breaker.	Locates 2FZSBO10, BATTERY CHARGER, and simulates opening.	
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**Cue: 2FZSBO10, BATTERY CHARGER, breaker, is open.**

**Examiners Note: breaker in Panel 2FZSBO, SBO Compressor Bldg Distribution Panel**

Comments:

5.1.6		<b>PLACE</b> SBO Control Air Dryer switch in ON position.	Locates SBO Control Air Dryer switch and simulates turning switch to ON position.	
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**Cue: SBO Control Air Dryer switch is ON, and Control Air On light is illuminated.**

Examiners Note:

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
5.1.7		<b>RECORD</b> Engine Hourmeter reading on Attachment 1, Section 1.0, and in log book at SBO compressor.	Locates Engine Hourmeter, 1XA16993, Tachometer/Hourmeter, inside engine control panel labeled Compressor Noise Emission Control Information, and records current reading in Section 1.0 of Att. 1. Locates logbook hanging from side of panel 2FZSBO, SBO Compressor Bldg Distribution Panel, and identifies where Engine Hourmeter should be logged.	

Cue:

Examiners Note:

Comments:

5.1.8		<b>PLACE UNLOADER VALVE</b> selector switch in START position.	Locates UNLOADER VALVE selector switch, and ensures switch in START position.	
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Cue: None

**Examiners Note: UNLOADER VALVE selector switch is normally in Start when engine is shutdown.**

Comments:

5.1.9	<b>*</b>	<b>PRESS AND HOLD</b> BY-PASS VALVE pushbutton.	<b>Locates BY-PASS VALVE pushbutton in control panel, and simulates depressing AND holding depressed.</b>	
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Cue: None

Examiners Note: None

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
5.1.10	*	PLACE SBO-IGN-SWT, ENGINE IGNITION SWITCH in START position until engine starts, then <b>RELEASE</b> to RUN position.	<p>While keeping the Bypass Valve pushbutton depressed, simulates placing the SBO-IGN-SWT SBO Air Comp Inst Pnl Engine Ignition Switch in START.</p> <p>After cue is given, releases SBO-IGN-SWT SBO Air Comp Inst Pnl Engine Ignition Switch to RUN.</p>	

**Cue: Engine has started.**

**Examiners Note:** If also releases the BYPASS VALVE pushbutton at this point, without checking oil pressure >15 psig, then CUE that the engine has stopped.

Comments:

5.1.11	*	When engine oil pressure is >15 psig, RELEASE BY-PASS VALVE pushbutton.	<p>Identifies oil pressure reading on gauge labeled" oil pressure" gauge inside control panel.</p> <p>After cue releases BY-PASS VALVE pushbutton.</p>	
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**Cue: Oil pressure is 40 psig.**

Examiners Note: None

Comments:

5.1.12		<b>ALLOW</b> engine to run for 5 minutes to warm up.		N/A
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**Cue: 5 minutes has elapsed.**

Examiners Note: None

Comments:

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
5.1.13	*	<b>OPEN</b> 1CA1913 SBO COMPRESSOR DISCHARGE VALVE, to pressurize Control Air header.	<b>Locates and describes opening 1CA1913 SBO COMPRESSOR DISCHARGE VALVE.</b>	
<p><b>Cue: 1CA1913, SBO COMPRESSOR DISCHARGE VALVE, is open.</b></p> <p>Examiners Note: None</p> <p><u>Comments:</u></p>				
5.1.14	*	<b>OPEN</b> 1CA1886, BLACKOUT AIR COMPRESSOR ISOLATION.	<b>Locates and describes opening 1CA1886, BLACKOUT AIR COMPRESSOR ISOLATION.</b>	
<p><b>Cue: 1CA1886, BLACKOUT AIR COMPRESSOR ISOLATION is open.</b></p> <p>Examiners Note: 1CA1886 is located near the entrance to Service Building on right side past the U2 mixing bottle.</p> <p><u>Comments:</u></p>				
5.1.15	*	<b>OPEN</b> 2CA584, YARD CONTROL AIR SUPPLY VALVE, to pressurize Aux. Building 1A and 2A Control Air headers.	<b>Locates and describes opening 2CA584, YARD CONTROL AIR SUPPLY VALVE.</b>	
<p><b>Cue: 2CA584, YARD CONTROL AIR SUPPLY VALVE is open.</b></p> <p>Examiners Note: 2CA584 is located near the entrance to Service Building on right side past the U2 mixing bottle.</p> <p><u>Comments:</u></p>				

STEP	CRITICAL	ELEMENT	STANDARD	GRADE (S/U)
5.1.16	*	<b>PLACE UNLOADER VALVE</b> selector switch in RUN position.	<b>Returns to SBO Compressor Building and points out UNLOADER VALVE selector switch and describes placing it in RUN position.</b>	
<p><b>Cue:</b></p> <p>Examiners Note: None.</p> <p><u>Comments:</u></p>				
<b>Terminating Cue</b>	<b>JPM COMPLETE</b>			

**RECORD JPM Stop Time: \_\_\_\_\_**

Operator's Name: \_\_\_\_\_ Job Title: RO \_\_\_\_\_ SRO \_\_\_\_\_

Facility: Salem JPM No.: 21-01 NRC IP-i Revision No.: 1

Task Title: Start the SBO Air Compressor IAW AB.LOOP-1

Task No.: N1150140501 Source: Bank  New \_\_\_\_\_ Mod \_\_\_\_\_

System: 056 Loss of Offsite Power

K/A Number / Description: AA 1.37 Ability to operate and/or monitor the following as they apply to Loss of Offsite Power: Instrument Air

K/A Rating RO 3.4 SRO N/A

Task Applicability: SRO Only \_\_\_\_\_ RO/SRO \_\_\_\_\_ AO/RO/SRO  Other \_\_\_\_\_

Time-Critical: Yes \_\_\_\_\_ No  Alternate Path: Yes \_\_\_\_\_ No

Estimated Time to Complete: 15 Minutes

Actual Time Used: \_\_\_\_\_ Minutes

Method of Testing: Simulated Performance  Actual Performance \_\_\_\_\_

Location: Classroom \_\_\_\_\_ Simulator \_\_\_\_\_ In-Plant  RCA \_\_\_\_\_

Required Materials: SC.OP-SO.CA-0001

Reference(s): SC.OP-SO.CA-0001

**EVALUATION SUMMARY:**

Were all the Critical Elements (steps) performed satisfactorily? Yes \_\_\_\_\_ No \_\_\_\_\_

The operator's performance was evaluated against the standards contained in this JPM, and has been determined to be: Satisfactory \_\_\_\_\_ Unsatisfactory \_\_\_\_\_

**Comments:**

Evaluator's Name: \_\_\_\_\_

Evaluator's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## STUDENT HANDOUT

### INITIAL CONDITIONS

- Both Salem Units have tripped due to a loss of off-site power. Equipment problems have resulted in NO Emergency Control Air Compressors (ECACs) running.

### INITIATING CUE

- The Unit 2 CRS has directed you to start the Station Blackout Compressor (SBO) IAW SC.OP-SO.CA-0001, SBO Diesel Control Air Compressor, starting with Step 5.1.3.
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