

CL-9F, LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP, REV. 1

In-Plant JPM i

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
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**SITE:** PRAIRIE ISLAND

**JPM TITLE:** LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP

**JPM NUMBER:** CL-9F REV. 1

**RELATED PRA INFORMATION:** IMPORTANT COMPONENT – 22 DD CLG WTR PMP

**TASK NUMBERS / TASK TITLE(S):** NLO 076 042 01 04 000 / RESPOND TO DIESEL CL PUMP TROUBLE ALARM  
 NLO 076 045 01 04 000 / STARTUP DIESEL COOLING WATER PUMP

**K/A NUMBERS:** 2.1.30 (4.4/4.0)

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:   
 Lab:

Time for Completion: 6 Minutes Time Critical: NO

Alternate Path: YES

**TASK APPLICABILITY:** SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Shawn Sarrasin</b>	<b>3/8/2016</b>
	Developer	Date
<b>Validated by:</b>	<b>Justin Hasner</b>	<b>3/15/2016</b>
	Validator (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>	<b>Mike Petersen</b>	<b>3/25/2016</b>
	Training Supervisor	Date

**CL-9F, LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP, REV. 1**

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**INITIAL CONDITIONS:**

- 11 and 21 Cooling Water pumps are running with no issues.
- Cooling Water Header pressures are normal.
- There is NO Safety Injection signal present on either unit.
- Step 5.7.7.A of C35, COOLING WATER, is complete.

**INITIATING CUES:**

- The SS directs you to start 22 Diesel Driven Cooling Water Pump per C35, COOLING WATER, Section 5.7.7.

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JPM PERFORMANCE INFORMATION

**Required Materials:** Consumable copy of page 32 of C35 (step 5.7.7.A marked complete) and C70350-0102

**General** C35, COOLING WATER  
F C70350-0102, OVERSPEED  
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f  
e  
r  
e  
n  
c  
e  
s  
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**Task** Examinee locally starts 22 Diesel Cooling Water Pump, recognizes over speed  
S condition, and locally stops 22 Diesel Cooling Water Pump.  
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a  
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**Start Time:** \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

## CL-9F, LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP, REV. 1

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<b>Performance Step:</b>	<b>C35 Step 5.7.7.B</b>
<b>Critical <u>Y</u></b>	<b>Place CS-7035001, 22 DIESEL COOLING WATER PUMP LOCAL/REMOTE SELECTOR, in "LOCAL".</b>
<b>Standard:</b>	<b>Examinee removes cover and places CS-7035001 in LOCAL</b>
<b>Evaluator Cue:</b>	<b>When examinee simulates removing the cover and placing CS-7035001 in LOCAL, then inform examinee the switch is in LOCAL.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C35 Step 5.7.7.C</b>
<b>Critical <u>Y</u></b>	<b>Depress CS-7035003, 22 DIESEL COOLING WATER PUMP LOCAL, Start Pushbutton.</b>
<b>Standard:</b>	<b>Examinee depresses CS-7035003 and recognizes trouble alarm.</b>
<b>Evaluator Cues:</b>	<ul style="list-style-type: none"> <li>• <b>When examinee simulates depressing CS-7035003, then inform examinee the button has been depressed and 22 Diesel Cooling Water Pump starts and is running.</b></li> <li>• <b>After approximately 10 seconds, inform the examinee an alarm sounds and annunciator 70350-0102 is illuminated.</b></li> </ul>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

## CL-9F, LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP, REV. 1

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<b>Performance Step:</b>	<b>C70350-0102 INITIAL ACTIONS Step 1</b>
<b>Critical <u>Y</u></b>	<b>IF &gt;1350 rpm, THEN verify diesel is tripped.</b>
<b>Standard:</b>	<b>Examinee determines diesel rpm is greater than 1350 and trips the diesel using CS-7035004 or EMERGENCY STOP pushbutton on top of the diesel.</b>
<b>Evaluator Cues:</b>	<ul style="list-style-type: none"> <li>• When the examinee locates the hardcopy of C70350-0102, then hand the examinee a consumable copy of C70350-0102.</li> <li>• Inform the examinee they can hear the diesel running.</li> <li>• If examinee asks if there is an emergency situation requiring 22 Diesel Cooling Water Pump, inform the examinee there is NO emergency requiring the pump.</li> <li>• If examinee checks 22 Diesel Cooling Water Pump speed, indicate a speed of 1500 rpm.</li> <li>• When the examinee has simulated stopping the diesel, then inform the examinee the diesel is coasting down and speed is less than 1350 rpm.</li> </ul>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** When the examinee has locally started 22 Diesel Cooling Water Pump, recognized the over speed condition, and locally stopped the 22 Diesel Cooling Water Pump; then this JPM is complete.

**Stop Time:** \_\_\_\_\_

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ATTACHMENT 2

JPM Number: CL-9F

JPM Title: LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP

Examinee & ID: \_\_\_\_\_

Evaluator: \_\_\_\_\_

Job Title: \_\_\_\_\_

Date: \_\_\_\_\_

Start Time \_\_\_\_\_

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

CL-9F, LOCAL START/STOP OF 22 DIESEL DRIVEN COOLING WATER PUMP, REV. 1

In-Plant JPM i

ATTACHMENT 3

## TURNOVER SHEET

**INITIAL CONDITIONS:**

- 11 and 21 Cooling Water pumps are running with no issues.
- Cooling Water Header pressures are normal.
- There is NO Safety Injection signal present on either unit.
- Step 5.7.7.A of C35, COOLING WATER, is complete.

**INITIATING CUES:**

- The SS directs you to start 22 Diesel Driven Cooling Water Pump per C35, COOLING WATER, Section 5.7.7.

EG-9, RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS, REV. 8

In-Plant JPM j

	JOB PERFORMANCE MEASURE (JPM)
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**SITE:** PRAIRIE ISLAND

**JPM TITLE:** RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS

**JPM NUMBER:** EG-9 REV. 8

**RELATED PRA INFORMATION:** LOSS OF OFFSITE POWER (11%)

**TASK NUMBERS / TASK TITLE(S):** CRO 064 ATI 00 00 015 / EMERG START DG FOLLOWING LOSS OF ALL AC  
NLO 064 020 04 04 000 / EMERG START DG FOLLOWING LOSS OF ALL AC

**K/A NUMBERS:** 055 EA2.03 (3.9/4.7)

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:   
 Lab:

Time for Completion: 11 Minutes Time Critical: NO

Alternate Path: NO

**TASK APPLICABILITY:** SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Shawn Sarrasin</b> Developer	<b>3/8/2016</b> Date
<b>Validated by:</b>	<b>Justin Hasner</b> Validator (See JPM Validation Checklist, Attachment 1)	<b>3/15/2016</b> Date
<b>Approved by:</b>	<b>Mike Petersen</b> Training Supervisor	<b>3/25/2016</b> Date



**EG-9, RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS, REV. 8**  
**In-Plant JPM j**

**INITIAL CONDITIONS:**

- Unit 1 has experienced a Loss of Offsite Power and a Safety Injection.
- Initial attempts to start D1 and D2 from the Control Room per 1ECA-0.0 have been unsuccessful.
- D1 and D2 Diesel Generator START/STOP switches are in PULLOUT.

**INITIATING CUES:**

- The SS directs you to perform 1ECA-0.0, step 12b, for BOTH D1 and D2.

EG-9, RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS, REV. 8

In-Plant JPM j

JPM PERFORMANCE INFORMATION

Required Materials: Consumable copy of page 13 of 1ECA-0.0

General 1ECA-0.0, LOSS OF ALL SAFEGUARDS AC POWER

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Task Examinee resets the Shutdown Relays and 86 Lockout Relays for D1 and D2.

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a  
r  
d  
s  
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Start Time: \_\_\_\_\_

**IMPORTANT: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.**

## EG-9, RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS, REV. 8

In-Plant JPM j

<b>Performance Step:</b> Critical <u>Y</u>	1ECA-0.0 Step 12.b.1 Locally Reset D1 Shutdown Relay <ul style="list-style-type: none"> <li>CS-55021, D1 DSL GEN ALM AND SHTDN RESET PB (located on D1 DIESEL GEN GAUGE PANEL)</li> </ul>
<b>Standard:</b>	Examinee resets D1 Shutdown Relay by depressing CS-55021.
<b>Evaluator Cue:</b>	When examinee simulates depressing CS-55021, inform examinee CS-55021 has been depressed.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	1ECA-0.0 Step 12.b.1 Locally Reset D2 Shutdown Relay <ul style="list-style-type: none"> <li>CS-55521, D2 DSL GEN ALM AND SHTDN RESET PB (located on D2 DIESEL GEN GAUGE PANEL)</li> </ul>
<b>Standard:</b>	Examinee resets D2 Shutdown Relay by depressing CS-55521.
<b>Evaluator Cue:</b>	When examinee simulates depressing CS-55521, inform examinee CS-55521 has been depressed.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	1ECA-0.0 Step 12.b.2 WHEN D1 shutdown relay reset, THEN reset D1 86 lockout relay: <ul style="list-style-type: none"> <li>D1 EMERGENCY GENERATOR LOCKOUT RELAY 86 (located on South side of D1 Metering &amp; Relay Cabinet in D1 room)</li> </ul>
<b>Standard:</b>	Examinee resets D1 86 lockout relay.
<b>Evaluator Cues:</b>	<ul style="list-style-type: none"> <li>If the examinee resets the D1 Shutdown Relay prior to simulating resetting the D1 86 lockout, then inform examinee the D1 86 lockout relay shows a black flag and the handle is pointing to the 12 o'clock position.</li> <li>If the examinee does not reset the D1 Shutdown Relay prior to resetting the D1 86 lockout, then inform examinee the D1 86 lockout relay shows a orange flag and the handle is pointing to the 11 o'clock position.</li> </ul>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

EG-9, RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS, REV. 8

In-Plant JPM j

<b>Performance Step:</b>	1ECA-0.0 Step 12.b.2
<b>Critical <u>Y</u></b>	<p>WHEN D2 shutdown relay reset, THEN reset D2 86 lockout relay:</p> <ul style="list-style-type: none"> <li>• D2 EMERG GEN LOCKOUT RELAY 86 (located on D2/GEN RLY PNL in Relay Room, East side)</li> </ul>
<b>Standard:</b>	Examinee resets D2 86 lockout relay.
<b>Evaluator Cues:</b>	<ul style="list-style-type: none"> <li>• If the examinee resets the D2 Shutdown Relay prior to simulating resetting the D2 86 lockout, then inform examinee the D2 86 lockout relay shows a black flag and the handle is pointing to the 12 o'clock position.</li> <li>• If the examinee does not reset the D2 Shutdown Relay prior to resetting the D2 86 lockout, then inform examinee the D2 86 lockout relay shows a orange flag and the handle is pointing to the 11 o'clock position.</li> </ul>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** When the examinee has reset the Shutdown Relays and 86 Lockout Relays for D1 and D2, then this JPM is complete.

**Stop Time:** \_\_\_\_\_



**EG-9, RESET UNIT 1 DIESEL GENERATOR SHUTDOWN AND 86 RELAYS, REV. 8**

In-Plant JPM j

**ATTACHMENT 3**

**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 has experienced a Loss of Offsite Power and a Safety Injection.
- Initial attempts to start D1 and D2 from the Control Room per 1ECA-0.0 have been unsuccessful.
- D1 and D2 Diesel Generator START/STOP switches are in PULLOUT.

**INITIATING CUES:**

- The SS directs you to perform 1ECA-0.0, step 12b, for BOTH D1 and D2.



**SF-1, STOP SPENT FUEL POOL PUMPS, REV. 1**  
**In-Plant JPM k**

**INITIAL CONDITIONS:**

- Unit 1 is at 100% power.
- 121 and 122 Spent Fuel Pool (SFP) pumps are RUNNING.
- The crew is responding to a low level in the Spent Fuel Pool per C16 AOP1, LOSS OF SFP INVENTORY.

**INITIATING CUE:**

- The SS directs you to STOP both 121 and 122 SFP pumps per Step 2.4.7 of C16 AOP1.



SF-1, STOP SPENT FUEL POOL PUMPS, REV. 1

In-Plant JPM k

JPM PERFORMANCE INFORMATION

**Required Materials:** Consumable copy of C16 AOP1, page 5 with steps 2.4.5 marked N/A and 2.4.6 marked complete.

**General** C16 AOP1, LOSS OF SFP INVENTORY

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e  
s  
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**Task** Examinee stops both 121 and 122 SFP pumps.

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a  
r  
d  
s  
:

**Start Time:** \_\_\_\_\_

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

## SF-1, STOP SPENT FUEL POOL PUMPS, REV. 1

## In-Plant JPM k

<b>Performance Step:</b> Critical <u>Y</u>	<b>C16 AOP1 Step 2.4.7</b> If SFP water level is less than EL. 750' 10", then stop running SFP cooling pumps: <ul style="list-style-type: none"> <li>• Stop 121 SFP Cooling Pump using CS-19067, 121 SFP PMP START/STOP PB.</li> </ul>
<b>Standard:</b>	Examinee simulates stopping 121 SFP pump using CS-19067.
<b>Evaluator Cues:</b>	<ul style="list-style-type: none"> <li>• If examinee asks what SFP level is, inform examinee SFP water level is 750'.</li> <li>• If examinee checks 121 SFP pump running light indication and discharge pressure prior to pump being secured, inform examinee that 121 SFP pump running light is RED and discharge pressure is 70 psig.</li> <li>• When examinee simulates pressing CS-19067, indicate CS-19067 PB is depressed, GREEN indicating light is ON, and pump discharge pressure lowers to 0 psig.</li> </ul>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	<b>C16 AOP1 Step 2.4.7</b> If SFP water level is less than EL. 750' 10", then stop running SFP cooling pumps: <ul style="list-style-type: none"> <li>• Stop 122 SFP Cooling Pump using CS-19068, 122 SFP PMP START/STOP PB.</li> </ul>
<b>Standard:</b>	Examinee simulates stopping 122 SFP pump using CS-19068.
<b>Evaluator Cue:</b>	<ul style="list-style-type: none"> <li>• If examinee asks what SFP level is, inform examinee SFP water level is 750'.</li> <li>• If examinee checks 122 SFP pump running light indication and discharge pressure prior to pump being secured, inform examinee that 122 SFP pump running light is RED and discharge pressure is 70 psig.</li> <li>• When examinee simulates pressing CS-19068, indicate CS-19068 PB is depressed, GREEN indicating light is ON, and pump discharge pressure lowers to 0 psig.</li> </ul>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**SF-1, STOP SPENT FUEL POOL PUMPS, REV. 1**

**In-Plant JPM k**

**Terminating Cues:** When examinee has stopped both 121 and 122 SFP pumps, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

SF-1, STOP SPENT FUEL POOL PUMPS, REV. 1  
In-Plant JPM k  
ATTACHMENT 2

JPM Number: SF-1

JPM Title: STOP SPENT FUEL POOL PUMPS

Examinee & ID: \_\_\_\_\_

Evaluator: \_\_\_\_\_

Job Title: \_\_\_\_\_

Date: \_\_\_\_\_

Start Time \_\_\_\_\_

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

**SF-1, STOP SPENT FUEL POOL PUMPS, REV. 1**  
**In-Plant JPM k**

**ATTACHMENT 3**

**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 is at 100% power.
- 121 and 122 Spent Fuel Pool (SFP) pumps are RUNNING.
- The crew is responding to a low level in the Spent Fuel Pool per C16 AOP1, LOSS OF SFP INVENTORY.

**INITIATING CUE:**

- The SS directs you to STOP both 121 and 122 SFP pumps per Step 2.4.7 of C16 AOP1.
- **ALL OPERATOR ACTIONS ARE TO BE SIMULATED UNLESS OTHERWISE DIRECTED.**