

PROCEDURE COVER SHEET

PENNSYLVANIA POWER & LIGHT CO. SUSQUEHANNA STEAM ELECTRIC STATION	
IMPLEMENTING LOOP A RHRWS/ESW MODIFICATION	GO-100-013 Revision 0 Page 1 of 23
EFFECTIVE DATE _____  PERIODIC REVIEW FREQUENCY AND EXPIRATION DATE (check one): ( ) Procedure exempt from periodic review. Procedure will not expire. (X) Periodic Review Frequency is: <u>2 years</u> Expiration Date: _____ Revised Expiration Dates: _____	
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## 1.0 PURPOSE

To provide instruction while the Loop A of RHRSW (Unit 1 & 2) and Loop A of ESW is being modified. The modification will be installed during Unit 1 Fifth Refuel Outage.

Modifications to be performed on Loop A are: (PMR 88-3031, 88-3032, 88-3036, 89-3015C):

- a. RHRSW Isolation Valve Replacement to RHR Heat Exchanger
- b. RHRSW Drain Line Additions
- c. RHRSW drain Isolation valve to facilitate ease of installation of Fire Protection System during Station Blackout
- d. ESW Isolation Valve Replacement to Reactor Bldg Isolation (PMR 88-3036)
- e. Remove existing Service Water to ESW Keepfill

During this time Unit 2 will be operating (Condition 1) with a temporary Tech Spec change, which increases RHR/RHRSW/ESW LCO from 3 to 7 days. (LCO starts when system draining begins and is cleared after RHRSW/ESW is restored and operable).

This procedure provides guidance on necessary systems required/available to be inservice/operable to maintain both units in a safe condition.

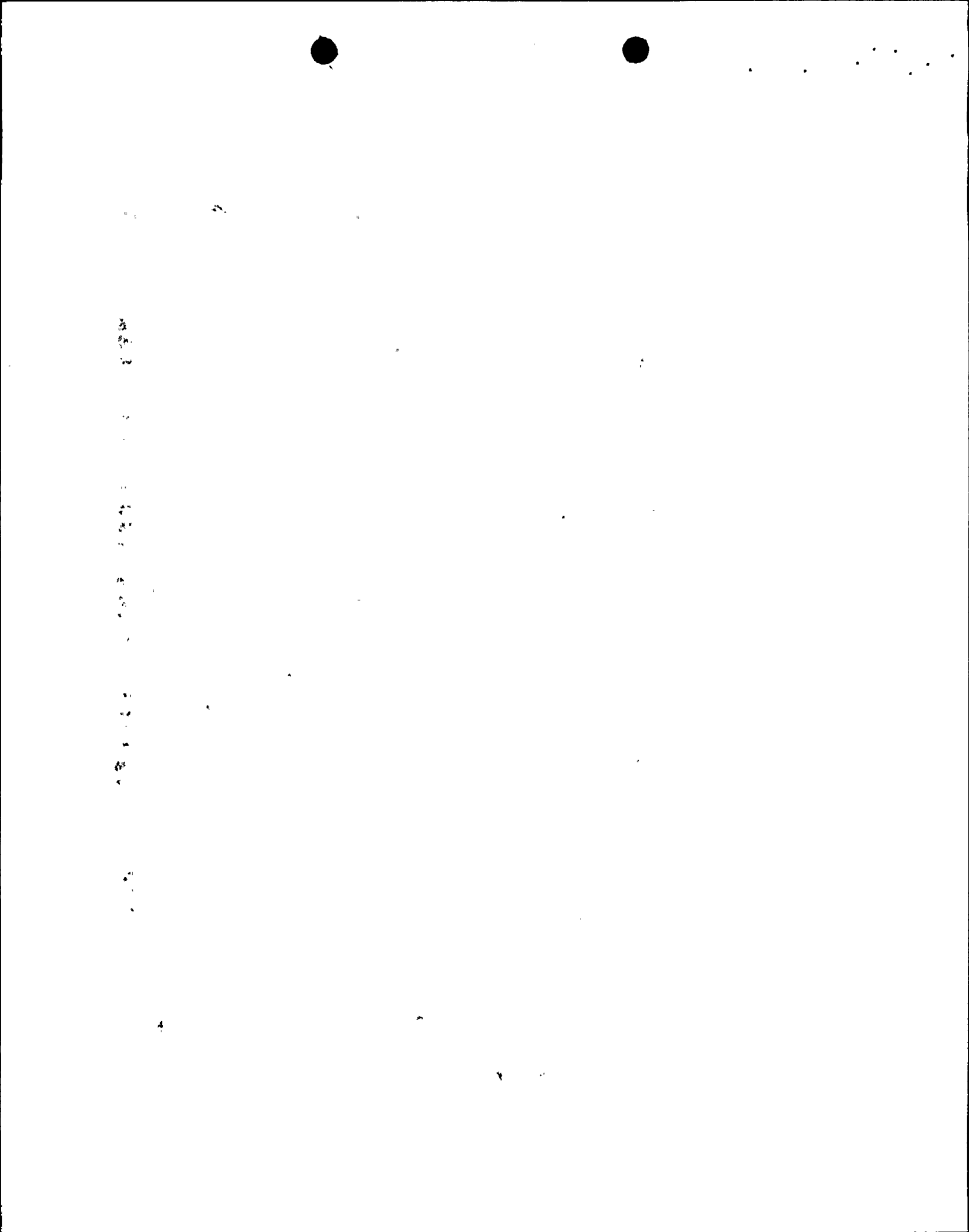
## 2.0 REFERENCES

- 2.1 Technical Specification 3.0.4
- 2.2 Technical Specification 3.5.1
- 2.3 Technical Specification 3.5.2
- 2.4 Technical Specification 3.6.2.2
- 2.5 Technical Specification 3.6.2.3
- 2.6 Technical Specification 3.7.1.1
- 2.7 Technical Specification 3.7.1.2
- 2.8 Technical Specification 3.7.6.1
- 2.9 Technical Specification 3.8.1.1

- 2.10 Technical Specification 3.8.1.2
- 2.11 Technical Specification 3.9.11.2
- 2.12 Safety Impact Assessment for a 7 Day LCO Extension for RHRSW/ESW Modification - from Jerry Stefanko, Dated 10/27/89
- 2.13 ES-261-001 RWCU Blowdown Mode
- 2.14 GO-100-006 Cold Shutdown, Defueled and Refueling
- 2.15 OP-030-001 Control Structure Chilled Water
- 2.16 OP-030-002 Control Structure HVAC
- 2.17 OP-054-001 ESW System
- 2.18 OP-116-001 RHRSW System
- 2.19 OP-135-001 Fuel Pool Cooling and Cleanup System
- 2.20 OP-149-001 RHR System
- 2.21 OP-149-002 RHR Operation in Shutdown Cooling Mode
- 2.22 OP-161-001 RWCU System
- 2.23 OP-234-001 Reactor Bldg. Chilled Water
- 2.24 OP-234-002 Reactor Bldg. HVAC
- 2.25 OP-249-005 RHR in Suppression Pool Cooling Mode
- 2.26 SSES Team Manual
- 2.27 TP-016-005 Pumpdown of A Loop RHRSW and ESW Piping

### 3.0 PREREQUISITES

- 3.1 Unit 1 in refuel outage in accordance with GO-100-006
- 3.2 Unit 1 Reactor is defueled
- 3.3 Unit 2 in Condition 1
- 3.4 RHRSW/ESW modifications are ready to be installed



- 3.5 Temporary ESW/RHRSW/RHR Tech Spec change is in place to change LCO action time from 3 days to 7 days.

#### 4.0 PRECAUTIONS

- 4.1 To minimize the use of decay heat removal systems, which will be limited during this GO, there should be no planned shutdowns or high risk testing on Unit 2 while implementing this GO.
- 4.2 RHRSW Pump 1P506B is being used as a backup pump for cooling to Unit 2 RHR Heat Exchanger while implementing this procedure. If RHRSW Pump 1P506B becomes inoperable, take appropriate Unit 1 Tech Spec action, there is no need to shutdown Unit 2.
- 4.3 Under LOCA/False LOCA events, existing procedures shall be used. Be aware that not all ECCS pumps/room coolers will have cooling water, therefore, these pumps (RHR A&D, Core Spray A&C) should be shutdown as soon as possible to prevent pump damage.
- 4.4 Unit 2 RWCU is required to be in operation while implementing this procedure, since it will be used as an alternate heat removal system during an accident. If Unit 2 RWCU becomes unavailable, notify Supervisor of Operations. If RWCU will be out of service for greater than 3 days, strongly consider shutting down Unit 2.
- 4.5 If Unit 2 RHR Suppression Pool Cooling Mode is required to be placed in service while Loop A RHRSW/ESW is out of service (due to an accidental HPCI/RCIC start, or MSRV leaking, etc.), RHR run time should be minimized and requires Supervisor of Operations approval (Approval should consider plant operation versus plant safety. Use of Suppression Pool Cooling should warrant consideration of shutting down Unit 2).
- 4.6 Fuel Pool Gates may or may not be installed while performing this GO.
- 4.7 RHRSW/ESW piping will be drained in accordance with TP-016-005. Mod work requires RHRSW/ESW valves and spool pieces to be removed. When this occurs Unit 2 Secondary Containment LCO T.S. 3.6.5 will be in affect. This LCO will be controlled by TP-016-005.

#### 5.0 INITIAL CONDITIONS

- 5.1 Unit 1 is in refuel outage with MODE SWITCH HS-C72A-1S01 locked in REFUEL.
- 5.2 Unit 1 reactor is defueled with all fuel in Spent Fuel Pool.

- 5.3 Unit 1 RHR Loop A and B are no longer required for LPCI, Shutdown Cooling or Suppression Pool Cooling Mode.
- 5.4 Unit 1 is being maintained in accordance with GO-100-006.
- 5.5 Unit 2 is in Condition 1.
- 5.6 Unit 2 RHR is not being used for Suppression Pool Cooling greater than once every 7 days. If less than 7 days, Supervisor of Operations concurrence is required to continue with this GO.

Concurrence (if needed)

Supervisor of Operations

- 5.7 Division 2 Control Structure Ventilation is available in accordance with OP-030-001 and 002.
- 5.8 Unit 2 Division 2 ESS Switchgear Coolers are available in accordance with OP-234-001 and 002.
- 5.9 Unit 2 Temporary Tech Spec changes for RHR, RHRSW and ESW are in place to change LCO action time from 3 days to 7 days.
- 5.10 The following PMR's are completed:
  - 5.10.1 PMR 89-3014A Install Dx Unit Keepfill
  - 5.10.2 PMR 89-3014B Install Dx Unit Keepfill
  - 5.10.3 PMR 89-3015A Install Control Structure Keepfill
  - 5.10.4 PMR 89-3015B Install Control Structure Keepfill
  - 5.10.5 PMR 89-3017B Open Spray Pond Bypass Valve (or temporary BYPASS installed)
  - 5.10.6 PMR 88-3031 RHRSW Hx Drains and Isolation (Unit 1 Preoutage Work)
  - 5.10.7 PMR 88-3032 RHRSW Hx Drains and Isolation (Unit 2 Preoutage Work)

Tech Engineer

CONFIRM

6.0 PROCEDURE

NOTE: This procedure will affect both units.

6.1 COMPLETE the following:

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

6.1.2 Time: \_\_\_\_\_

6.1.3 Signature: \_\_\_\_\_  
Unit Supervisor Unit 1

\_\_\_\_\_  
Unit Supervisor Unit 2

6.2 All initial conditions (section 5.0) have been met. \_\_\_\_\_



CONFIRM

6.3 Prior to releasing A Loop of RHRSW/ESW for work, ENSURE/PERFORM the following:

6.3.1 For Unit Common:

- a. Loop B ESW is OPERABLE in accordance with T.S. 3.7.1.2. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON LOOP B ESW WHILE 7 DAY WORK/LCO IS IN EFFECT.

b. SPRAY POND LOOP B BYPS HV-01222B is OPEN as follows:

- (1) CONFIRM open indication at OC653 \_\_\_\_\_

AND

(2) To ensure valve is open (NRC commitment) need to establish flow through HV-01222B by either:

- (a) CONFIRMING SO-054-003 has been performed since HV-01222B was open via PMR 89-3017B or temporary Bypass \_\_\_\_\_

OR

- (b) START B or D ESW Pump in accordance with OP-054-001. \_\_\_\_\_

AND

- (c) If rated flow has been established, HV-01222B has been confirmed open, SHUTDOWN ESW pump in accordance with OP-054-001 \_\_\_\_\_

c. Four Diesel Generators are OPERABLE in accordance with T.S. 3.8.1.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON DIESELS WHILE 7 DAY WORK/LCO IS IN EFFECT.

d. If E D/G is substituted for another D/G, RECORD the D/G being substituted: \_\_\_\_\_

E substituted for \_\_\_\_\_ D/G

CONFIRM

e. CONFIRM the following B Loop ESW valves for the 4 aligned Diesel Generators are OPEN. CONFIRM CLOSE the 2 valves for the D/G not in Standby (Circle appropriate valve position):

- |      |                                    |            |
|------|------------------------------------|------------|
| (1)  | ESW LOOP B DSL A CLR ISO HV-01120A | OPEN/CLOSE |
| (2)  | ESW LOOP B DSL A CLR ISO HV-01110A | OPEN/CLOSE |
| (3)  | ESW LOOP B DSL B CLR ISO HV-01120B | OPEN/CLOSE |
| (4)  | ESW LOOP B DSL B CLR ISO HV-01110B | OPEN/CLOSE |
| (5)  | ESW LOOP B DSL C CLR ISO HV-01120C | OPEN/CLOSE |
| (6)  | ESW LOOP B DSL C CLR ISO HV-01110C | OPEN/CLOSE |
| (7)  | ESW LOOP B DSL D CLR ISO HV-01120D | OPEN/CLOSE |
| (8)  | ESW LOOP B DSL D CLR ISO HV-01110D | OPEN/CLOSE |
| (9)  | ESW LOOP B DSL E CLR ISO HV-01120E | OPEN/CLOSE |
| (10) | ESW LOOP B DSL E CLR ISO HV-01110E | OPEN/CLOSE |

f. CONFIRM the following A Loop ESW valves for the Diesel Generators are CLOSED:

- |      |                                    |       |
|------|------------------------------------|-------|
| (1)  | ESW LOOP A DSL A CLR ISO HV-01122A | _____ |
| (2)  | ESW LOOP A DSL A CLR ISO HV-01112A | _____ |
| (3)  | ESW LOOP A DSL B CLR ISO HV-01122B | _____ |
| (4)  | ESW LOOP A DSL B CLR ISO HV-01112B | _____ |
| (5)  | ESW LOOP A DSL C CLR ISO HV-01122C | _____ |
| (6)  | ESW LOOP A DSL C CLR ISO HV-01112C | _____ |
| (7)  | ESW LOOP A DSL D CLR ISO HV-01122D | _____ |
| (8)  | ESW LOOP A DSL D CLR ISO HV-01112D | _____ |
| (9)  | ESW LOOP A DSL E CLR ISO HV-01122E | _____ |
| (10) | ESW LOOP A DSL E CLR ISO HV-01112E | _____ |

CONFIRM

g. CONFIRM the following ESW valves are LOCKED  
OPEN in ESSW Pumphouse (55-685'):

(1) ESW Pp B Dsch Iso 0-11-007 \_\_\_\_\_

(2) ESW Pp D Dsch Iso 0-11-008 \_\_\_\_\_

h. CONFIRM Offsite Power (T-10 and T-20) is  
OPERABLE in accordance with T.S. 3.8.1.1. \_\_\_\_\_

CAUTION

NO TESTING OR MAINTENANCE IS TO BE PERFORMED ON T-10 AND T-20, WHILE 7 DAY  
WORK/LCO IS IN EFFECT.

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Small mark or text at the bottom center of the page.

i. CONFIRM the following ESW valves for the 4 aligned D/G are positioned as follows (NA the D/G not in standby):

	VALVE	NAME	LOCATION	POSITION	CONFIRM
(1)	0-11-041	DG A L-O CLR THROTTLE	44-677 <sup>1</sup>	LOCKED 5/16 OPEN	*
(2)	0-11-042	DG A FUEL OIL CLR & INTERCLR THROTTLE	44-677 <sup>1</sup>	LOCKED 7/16 OPEN	*
(3)	0-11-049	DG A JKT WTR CLR THROTTLE	44-677 <sup>1</sup>	LOCKED 5/16 OPEN	*
(4)	0-11-043	DG C L-O CLR THROTTLE	44-677 <sup>1</sup>	LOCKED 3/8 OPEN	*
(5)	0-11-044	DG C FUEL OIL CLR & INTERCLR THROTTLE	44-677 <sup>1</sup>	LOCKED 3/8 OPEN	*
(6)	0-11-050	DG C JKT WTR CLR THROTTLE	44-677 <sup>1</sup>	LOCKED 1/8 OPEN	*
(7)	0-11-045	DG B L-O CLR THROTTLE	43-677 <sup>1</sup>	LOCKED 3/8 OPEN	*
(8)	0-11-046	DG B FUEL OIL CLR & INTERCLR THROTTLE	43-677 <sup>1</sup>	LOCKED 5/16 OPEN	*
(9)	0-11-051	DG B JKT WTR CLR THROTTLE	43-677 <sup>1</sup>	LOCKED 5/16 OPEN	*
(10)	0-11-047	DG D L-O CLR THROTTLE	43-677 <sup>1</sup>	LOCKED 3/8 OPEN	*
(11)	0-11-048	DG D FUEL OIL CLR & INTERCLR THROTTLE	43-677 <sup>1</sup>	LOCKED 5/8 OPEN	*
(12)	0-11-052	DG D JKT WTR CLR THROTTLE	43-677 <sup>1</sup>	LOCKED 5/16 OPEN	*
(13)	0-11-501	ESW SUPPLY TO DG E INTERCOOLER ISO	81-676 <sup>1</sup>	LOCKED OPEN	
(14)	0-11-502	ESW SUPPLY TO DG E LUBE OIL HX ISO	81-676 <sup>1</sup>	LOCKED OPEN	
(15)	0-11-503	ESW SUPPLY TO DG E JACKET WTR HX ISO	81-676 <sup>1</sup>	LOCKED OPEN	
(16)	0-11-504	ESW SUPPLY TO DG E FUEL OIL COOLER ISO	81-676 <sup>1</sup>	LOCKED OPEN	
(17)	0-11-506	FUEL OIL CLR ESW RETURN ISO	81-676 <sup>1</sup>	LOCKED 1/2 TURN OPEN	*
(18)	0-11-507	JKT WTR HX ESW RETURN ISO	81-676 <sup>1</sup>	LOCKWIRED 2.5 NOTCHES OPEN	*
(19)	0-11-508	LUBE OIL HX ESW RET ISO	81-676 <sup>1</sup>	LOCKWIRED 1-1/4 NOTCH OPEN	*
(20)	0-11-509	INTERCOOLER ESW RET ISO	81-676 <sup>1</sup>	LOCKWIRED 2-1/8 NOTCHES OPEN	*

\* CONFIRM lock status only - valve is positioned per test procedure. Do not adjust.

CONFIRM

- j. CONFIRM Fire Suppression Water System is  
OPERABLE in accordance with T.S. 3.7.6.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON FIRE SUPPRESSION SYSTEM WHILE 7 DAY  
WORK/LCO IS IN EFFECT.

CONFIRM

6.3.2 For Unit 1 (Unit 1 Unit Supervisor's Responsibility)

a. CONFIRM following ESW valves are OPEN:

	<u>VALVE</u>	<u>NAME</u>	<u>LOCATION</u>	
(1)	1-11-187	ESW LOOP B RETURN ISO	28-645'	_____
(2)	1-11-103	ESW LOOP B SUPPLY	28-645'	_____

b. CONFIRM RHRSW Pp 1P506B Dsch Iso 1-12-004 (55-685') is LOCKED OPEN. \_\_\_\_\_

c. CONFIRM RHRSW Loop B is OPERABLE in accordance with T.S. 3.7.1.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON RHRSW LOOP B WHILE 7 DAY WORK/LCO IS IN EFFECT.

d. CONFIRM Secondary Containment, Zone 1 is isolated from Zone 3. \_\_\_\_\_

6.3.3 For Unit 2 (Unit 2 Unit Supervisor's Responsibility):

- a. CONFIRM the following ESW valves in the Reactor Building are POSITIONED as follows: (This will ensure RHR is available for LPCI or Suppression Pool Cooling.)

	VALVE	NAME	LOCATION	POSITION	CONFIRM
(1)	2-11-190	ESW LOOP B RETURN ISO	33-645 <sup>1</sup>	LOCKED OPEN	
(2)	2-11-103	ESW LOOP B SUPPLY ISO	33-645 <sup>1</sup>	LOCKED OPEN	
(3)	2-11-193	ESW LOOP B SUPPLY TO RHR PP C CLR ISO	33-645 <sup>1</sup>	LOCKED OPEN	
(4)	2-11-194	ESW LOOP B RETURN FROM RHR PP C CLR ISO	33-645 <sup>1</sup>	LOCKED OPEN	
(5)	2-11-107B	RHR PP B SEAL WTR CLR ESW SUPPLY	33-645 <sup>1</sup>	LOCKED OPEN	
(6)	2-11-126B	RHR PP RM UNIT CLR 2B ESW SUPPLY	33-645 <sup>1</sup>	LOCKED OPEN	
(7)	2-11-128B	RHR PP B MTR OIL CLR ESW SUPPLY	33-645 <sup>1</sup>	LOCKED OPEN	
(8)	2-11-106B	RHR PP B SEAL WTR CLR ESW THROTTLE	33-645 <sup>1</sup>	LOCKED FULL OPEN	*
(9)	2-11-127B	RHR PP RM CLR 2B ESW SUPPLY	33-645 <sup>1</sup>	LOCKED 1/4 OPEN	*
(10)	2-11-129B	RHR PP B MTR OIL CLR ESW THROTTLE	33-645 <sup>1</sup>	LOCKED FULL OPEN	*
(11)	2-11-107C	RHR PP C SEAL WTR CLR ESW THROTTLE	34-645 <sup>1</sup>	LOCKED OPEN	
(12)	2-11-126C	RHR PP RM UNIT CLR 2C ESW SUPPLY	34-645 <sup>1</sup>	LOCKED OPEN	
(13)	2-11-128C	RHR PP C MTR OIL CLR ESW SUPPLY	34-645 <sup>1</sup>	LOCKED OPEN	
(14)	2-11-106C	RHR PP C SEAL WTR CLR ESW THROTTLE	34-645 <sup>1</sup>	LOCKED FULL OPEN	*
(15)	2-11-127C	RHR PP RM UNIT CLR ESW THROTTLE	34-645 <sup>1</sup>	LOCKED 5/16 OPEN	*
(16)	2-11-129C	RHR PP C MTR OIL CLR ESW THROTTLE	34-645 <sup>1</sup>	LOCKED FULL OPEN	*

\* CONFIRM lock status only - valve is positioned per test procedure. Do not adjust.



CONFIRM

- b. CONFIRM RHR Pumps B and C (2P202B and C) are OPERABLE in accordance with T.S. 3.5.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON RHR WHILE 7 DAY WORK/LCO IS IN EFFECT.

- c. CONFIRM RHR Loops A and B valves are aligned for auto LPCI operation. \_\_\_\_\_

NOTE: RHR Pumps A and D are available for short term injection if required for emergency use and post accident. The pump shall remain aligned and ready for operation.

- d. CONFIRM Suppression Pool Water Temperature is as low as possible (to prevent having to run RHR in Suppression Pool Cooling). If not, run RHR in Suppression Pool Cooling in accordance with OP-249-005 to obtain lowest water temperature. \_\_\_\_\_

- e. CONFIRM RHRSW Pp 2P506B Dsch Iso 2-11-004 (55-685') is LOCKED OPEN. \_\_\_\_\_

- f. CONFIRM RHRSW Loop B is OPERABLE in accordance with T.S. 3.7.1.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON RHRSW LOOP B WHILE 7 DAY WORK/LCO IS IN EFFECT.

g. CONFIRM the following RHR Loop A valves are positioned as follows:

	VALVE	NAME	LOCATION	POSITION
(1)	251-F034A	RHR PP A DSCH ISO	34-645'	LOCKED OPEN
(2)	251-F034C	RHR PP B DSCH ISO	34-645'	LOCKED OPEN
(3)	251-F034B	RHR PP C DSCH ISO	33-645'	LOCKED OPEN
(4)	251-F034D	RHR PP D DSCH ISO	33-645'	LOCKED OPEN
(5)	HV-251-F004A	RHR PUMP A SUCT	2C601	OPEN
(6)	HV-251-F004B	RHR PUMP B SUCT	2C601	OPEN
(7)	HV-251-F004C	RHR PUMP C SUCT	2C601	OPEN
(8)	HV-251-F004D	RHR PUMP D SUCT	2C601	OPEN
(9)	HV-251-F017A	RHR INJ FLOW CTL	2C601	OPEN
(10)	HV-251-F017B	RHR INJ FLOW CTL	2C601	OPEN

CONFIRM

h. CONFIRM RWCU system is in operation in accordance with OP-261-001. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON RWCU WHILE 7 DAY WORK/LCO IS IN EFFECT.

i. CONFIRM HPCI is OPERABLE in accordance with T.S. 3.5.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON HPCI WHILE 7 DAY WORK/LCO IS IN EFFECT.

j. CONFIRM RCIC is OPERABLE in accordance with T.S. 3.7.3. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED RCIC WHILE 7 DAY WORK/LCO IS IN EFFECT.

CONFIRM

- k. CONFIRM Core Spray (Div 2) is OPERABLE in accordance with T.S. 3.5.1. \_\_\_\_\_

CAUTION

NO WORK OR TESTING IS TO BE PERFORMED ON CORE SPRAY (DIV 2) WHILE 7 DAY WORK/LCO IS IN EFFECT.

NOTE: Core Spray Division 1 is available for short term emergency use if desired. The pumps shall remain aligned and ready for operation.

1. CONFIRM ADS is: \_\_\_\_\_

(1) OPERABLE \_\_\_\_\_

(2) No work or testing is scheduled to be performed on ADS while 7 day work/LCO is in effect. \_\_\_\_\_

- m. CONFIRM there are no items (short term LCO's, major equipment problems, planned downpowers, etc.) scheduled (except for secondary containment LCO's which will be entered to perform TP-016-005) or occurring which may cause Unit 2 to be shutdown. \_\_\_\_\_

NOTE: During implementation of TP-016-005, Secondary Containment Integrity will be violated, therefore Tech Spec 3.6.1 action will be in effect. TP-016-005 will control when this LCO is entered and exited.

- n. CONFIRM that all high risk testing (i.e. NI's, half scrams, etc.) are complete and current. \_\_\_\_\_

CAUTION

NO HIGH RISK TESTING IS TO BE PERFORMED WHILE 7 DAY WORK/LCO IS IN EFFECT.

CONFIRM

- o. Yellow Tag, the following pumps, due to no cooling:
- (1) RHR PUMP 2P202A
  - (2) RHR PUMP 2P202D
  - (3) CORE SPRAY PUMP 2P206A
  - (4) CORE SPRAY PUMP 2P206C
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CONFIRM

6.4 Releasing Loop A RHRSW/ESW for work.

- 6.4.1 CONFIRM all conditions have been met in step 6.3. \_\_\_\_\_
- 6.4.2 CONFIRM Tech Staff is available to PERFORM TP-016-005 to drain Loop A RHRSW/ESW. \_\_\_\_\_
- 6.4.3 Once TP-016-005 has started, PERFORM the following to minimize the impact of losing RHR LPCI mode:
- a. POSITION the following RHR Hx Valves:
- |     |              |                        |        |       |
|-----|--------------|------------------------|--------|-------|
| (1) | HV-251-F003A | HX A SHELL SIDE INLET  | CLOSED | _____ |
| (2) | HV-251-F047A | HX A SHELL SIDE OUTLET | CLOSED | _____ |
| (3) | HV-251-F048A | HX A SHELL SIDE BYPS   | OPEN   | _____ |
- b. ENTER appropriate Tech Spec Actions. (T.S. 3.5.1, 3.7.1.1, 3.7.1.2) \_\_\_\_\_

CAUTION

DURING THE 7 DAY LCO, NO WORK OR TESTING IS TO BE PERFORMED ON THE FOLLOWING SYSTEMS:

COMMON: B LOOP ESW, T-10 AND T-20, FIRE SUPPRESSION SYSTEM, 4 OPERABLE DIESELS

UNIT 1: B LOOP RHRSW

UNIT 2: RHR, RCIC, HPCI, ADS, B LOOP RHRSW, RWCU, DIV 2 CORE SPRAY, ALSO NO HIGH RISK TESTING (NI'S, HALF SCRAMS, ETC.)

NOTE (1): TP-016-005 will direct all actions for draining Loop A piping. This GO provides guidance on plant operation during this time.

NOTE (2): TP-016-005 will drain A Loop piping using hoses. If hoses break, immediate action is required to isolate leak.

NOTE (3): TP-016-005 will violate Unit 2 Secondary Containment (T.S. 3.6.1), LCO start and stop time will be controlled via TP-016-005.

6.4.4 RELEASE work to work group. \_\_\_\_\_

- 6.4.5 While draining is in progress and/or work is being performed, the following needs to be implemented:

CAUTION

WITH RWCU NOT AVAILABLE, LONG TERM ALTERNATE DECAY HEAT REMOVAL CAPABILITY POST ACCIDENT IS LOST.

- a. If Unit 2 RWCU becomes unavailable:
- (1) NOTIFY Supervisor of Operations or designee.
  - (2) RESTORE RWCU as soon as possible.
  - (3) If RWCU is going to be out of service for greater than 3 days, CONSIDER a controlled shutdown of Unit 2.

CAUTION

USING SUPPRESSION POOL COOLING MAY RESULT IN A LOSS OF THE ONLY RHR LPCI AND SDC LOOP, POST ACCIDENT, DUE TO THE POTENTIAL WATERHAMMER EFFECTS WHICH MAY OCCUR FOLLOWING LOCA/LOOP.

- b. If Unit 2 RHR is required to be in operation for Suppression Pool Cooling then:
- (1) NOTIFY Supervisor of Operations or designee to consider continual operation of Unit 2.
  - (2) MINIMIZE RHR run time.
  - (3) PLACE RHR in Suppression Pool Cooling in accordance with OP-249-005.
- c. If 1P506B becomes unavailable (Unit 1 RHRSW Pump 1P506B is being used as a backup for Unit 2 RHRSW Pump 2P506B).
- (1) NOTIFY Supervisor of Operations or designee.
  - (2) Take appropriate Unit 1 Tech Spec Action only.
  - (3) No need to shut down Unit 2 unless otherwise directed.

CONFIRM

d. If Unit 2 has a LOCA:

- (1) MONITOR RHR and Core Spray Motor Temperatures on Video Service Format #45.
- (2) Be aware that not all ECCS pumps have cooling water, therefore, these pumps (RHR A&D, Core Spray A&C) should be shut down as soon as possible.
- (3) RWCU will be available as an alternate decay heat removal system if needed, in accordance with ES-261-001.
- (4) Be aware if a LOCA/False LOCA occurs the Unit 1 ECCS pumps will not be required, since reactor is defueled.

e. Unit 1 reactor must remain defueled.

6.4.6 When modification work is complete:

a. MAINTAIN Unit 1 in accordance with GO-100-006 \_\_\_\_\_

b. Following Unit 1 Systems can/should be restored as required to support outage schedule: \_\_\_\_\_

(1) RHR \_\_\_\_\_

(2) ESW \_\_\_\_\_

(3) RHRSW \_\_\_\_\_

c. Following Unit 2 Systems should be returned to operable status: \_\_\_\_\_

(1) RHR (Loop A&D) \_\_\_\_\_

(2) ESW \_\_\_\_\_

(3) RHRSW \_\_\_\_\_

d. RESTORE ESW Loop A to diesels. \_\_\_\_\_

e. CLEAR Yellow Tags, on following handswitches: \_\_\_\_\_

(1) RHR PUMP 2P202A \_\_\_\_\_

(2) RHR PUMP 2P202D \_\_\_\_\_

(3) CORE SPRAY PUMP 2P206A \_\_\_\_\_



CONFIRM

(4) CORE SPRAY PUMP 2P206C

6.5 FORWARD completed GO-100-013 in sequence to the following for review and subsequent retention.

6.5.1 Shift Supervisor.

\_\_\_\_\_  
Signature

6.5.2 Day Shift Supervisor.

\_\_\_\_\_  
Signature

6.5.3 Supervisor of Operations.

\_\_\_\_\_  
Signature

6.5.4 Supervisor DCC.

## 7.0 FINAL CONDITIONS

### 7.1 Unit 1:

- 7.1.1 MODE SWITCH HS-C72A-1S01 locked in REFUEL.
- 7.1.2 Unit is being maintained in refuel outage in accordance with GO-100-006.
- 7.1.3 Reactor is defueled and all fuel is in spent fuel pool.

### 7.2 Unit 2

- 7.2.1 Condition 1 at steady state power.
- 7.2.2 A&B Loops RHRSW are operable.
- 7.2.3 A&B Loops of RHR are restored (RHR Heat Exchanger) and operable.

### 7.3 Unit Common

- 7.3.1 A&B Loop of ESW is restored to Diesels.
- 7.3.2 A&B Loops ESW are operable.