

SFP SERVICE WATER COOLING ISOLATION FOR
MAINTENANCE

Date _____
DSS _____
Operations Manager _____

RECORD

PROCEDURE VERIFIED CURRENT AND CHECKED FOR TEMPORARY CHANGES IF FIELD
COPIES REQUIRED, USE PBF-0026; IAW NP 1.2.4 AND DO NOT COMPLETE THIS BLOCK

BY: _____ DATE: _____

1.0 PURPOSE

To provide the requirements for isolating Service Water to the Spent Fuel Pool. This allows maintenance to be performed on the Service Water portion of the system which is common to both SFP heat exchangers or which cannot be isolated without isolating Service Water to both heat exchangers.

2.0 REFERENCES

IR 96-006, NRC Inspection Report; NRC Commitment for Operations procedures PMT/QC reviews.

3.0 PRECAUTIONS AND LIMITATIONS

- 3.1 The level of borated water in the Spent Fuel Pool should be maintained above the low level alarm setpoint. If at any time the low level alarm is attained, special consideration should be taken to assure a loss of suction for the pumps has not occurred.
- 3.2 During normal system operation, Service Water system pressure as read on PI-2844 and/or PI-2855 shall be maintained as shown on Attachment A of OI-70.
- 3.3 This test will be evaluating the heat up rate of the SFP with SW isolated. The heat up rate of the SFP need only be tested if fuel has been added to the SFP since the last time SFP heat up rate was tested.
- 3.4 Do not perform this procedure during dry cask or fuel handling operations in the SFP.
- 3.5 P-12A or B will be maintained running during this procedure IAW OP-8A. To maintain normal SFP temperature distribution.
- 3.6 When RE-220 is taken in/out of service, observe the requirements of TS 15.7.3, TS Table 15.7.3-1, and PBF-2068g.

4.0 INITIAL CONDITIONS

- 4.1 Initial SFP temperature must be 70-75 °F.

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- 4.2 SFP flow rate 1000-1100 gpm. _____
- 4.3 Normal operating level in the SFP (63-64 ft.). _____
- 4.4 W-33 A and B, SFP Supply Fans, available and NOT running. _____
- 4.5 The SFP Cooling System is aligned per CL-5C. _____
- 4.6 DSS permission to perform test. _____

DSS _____

NOTE: *If heat up rate test has already been performed since the last time fuel was added to the pool, transfer data to Attachment A and N/A all of section 5.0.*

5.0 SFP HEAT-UP RATE TESTING

NOTE: *If P-12A is operating, perform section 5.1 and "N/A" section 5.2.
If P-12B is operating, perform section 5.2 and "N/A" section 5.1.*

5.1 P-12A, SFP Cooling Pump, operating.

CAUTION SEE P&L 3.5 FOR STEP 5.1.1.

- 5.1.1 Verify shut SF-23, P-12 A/B SFP Pump Discharge Crossconnect. _____
- 5.1.2 Verify shut and remove the cap from SW-654, HX-13A SFP HX Inlet Vent. _____
- 5.1.3 Attach a hose to the piping downstream of SW-654, HX-13A SFP HX Inlet Vent. _____
- 5.1.4 Route hose from SW-654 to the U1 or U2 Facade Sump. _____

CAUTION SEE P&L 3.6 FOR STEP 5.1.5.

- 5.1.5 Declare RE-220 out of service. _____
- 5.1.6 Shut SW-653, HX-13B SFP HX Inlet. _____
- 5.1.7 Verify shut SW-2930B, HX-13B SFP HX Outlet. _____

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5.1.8 Shut SW-2930A, HX-13A SFP HX Outlet.

5.1.9 Shut SW-652, HX-13A SFP HX Inlet.

NOTE: *If the vent draws air into the SW system, then shut SW-654, HX-13A SFP HX Inlet Vent, and leave SW-654 shut.*

5.1.10 Slowly open SW-654, HX-13A SFP HX Inlet Vent.

5.1.11 Allow HX-13A SW side to depressurize.

***CAUTION* DO NOT ALLOW SFP TEMPERATURE TO RISE ABOVE 90°F DURING STEP 5.1.12.**

5.1.12 Take data on the temperature rise of the SFP for a minimum of 4 hours or any temperature limit is reached on Attachment A.

5.1.13 After data has been collected shut SW-654, HX-13A SFP HX Inlet Vent.

5.1.14 Open SW-652, HX-13A SFP HX Inlet.

5.1.15 Vent HX-13A by opening SW-654, HX-13A SFP HX Inlet Vent.

5.1.16 Shut SW-654, HX-13A SFP HX Inlet Vent.

5.1.17 Open SW-2930A, HX-13A SFP HX Outlet.

5.1.18 Disconnect the hose from the piping downstream of SW-654, HX-13A SFP HX Inlet Vent.

5.1.19 Cap SW-654, HX-13A SFP HX Inlet Vent.

5.1.20 Open SW-653, HX-13B SFP HX Inlet.

***CAUTION* SEE P&L 3.5 FOR STEP 5.1.21.**

5.1.21 Position SF-23, P-12 A/B SFP Pump Discharge Crossconnect per DSS.

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***CAUTION* SEE P&L 3.6 FOR STEP 5.1.22.**

5.1.22 Return RE-220 to service.

5.2 P-12B, SFP Cooling Pump, operating.

***CAUTION* SEE P&L 3.5 FOR STEP 5.2.1.**

5.2.1 Verify shut SF-23, P-12 A/B SFP Pump Discharge
Crossconnect.

5.2.2 Verify shut and remove the cap from SW-655, HX-13B SFP
HX Inlet Vent.

5.2.3 Attach a hose to the piping downstream of SW-655, HX-13B
SFP HX Inlet Vent.

5.2.4 Route hose from SW-655 to the U1 or U2 Facade Sump.

***CAUTION* SEE P&L 3.6 FOR STEP 5.2.5.**

5.2.5 Declare RE-220 out of service.

5.2.6 Shut SW-652, HX-13A SFP HX Inlet.

5.2.7 Verify shut SW-2930A, HX-13A SFP HX Outlet.

5.2.8 Shut SW-2930B, HX-13B SFP HX Outlet.

5.2.9 Shut SW-653, HX-13B SFP HX Inlet.

**NOTE: If the vent draws air into the SW system, then shut SW-655,
HX-13B SFP HX Inlet Vent, and leave SW-655 shut.**

5.2.10 Slowly open SW-655, HX-13B SFP HX Inlet Vent.

5.2.11 Allow HX-13B SW side to depressurize.

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***CAUTION* DO NOT ALLOW SFP TEMPERATURE TO RISE
ABOVE 90°F DURING STEP 5.2.12.**

- 5.2.12 Take data on the temperature rise of the SFP for a minimum of
4 hours or any temperature limit is reached on Attachment A. _____
- 5.2.13 After data has been collected shut SW-655, HX-13B SFP HX
Inlet Vent. _____
- 5.2.14 Open SW-653, HX-13B SFP HX Inlet. _____
- 5.2.15 Vent HX-13B by opening SW-655, HX-13A SFP HX Inlet
Vent. _____
- 5.2.16 Shut SW-655, HX-13B SFP HX Inlet Vent. _____
- 5.2.17 Open SW-2930B, HX-13B SFP HX Outlet. _____
- 5.2.18 Disconnect the hose from the piping downstream of SW-655,
HX-13B SFP HX Inlet Vent. _____
- 5.2.19 Cap SW-655, HX-13B SFP HX Inlet Vent. _____
- 5.2.20 Open SW-652, HX-13A SFP HX Inlet. _____

***CAUTION* SEE P&L 3.5 FOR STEP 5.2.21.**

- 5.2.21 Position SF-23, P-12 A/B SFP Pump Discharge Crossconnect
per DSS. _____

***CAUTION* SEE P&L 3.6 FOR STEP 5.2.22.**

- 5.2.22 Return RE-220 to service. _____

6.0 ISOLATION OF SW TO SFP COOLING FOR MAINTENANCE

- 6.1 Verify with reactor engineering that heat load in the pool is less than
 7×10^6 Btu/hr. _____
- 6.2 Verify repair/modification procedures and equipment available prior to
isolating system for maintenance. _____

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- 6.3 Verify with repair group that repairs are expected to be complete prior to reaching 100°F. _____
- 6.4 Verify repair/modification procedure has contingency actions in place to restore SFP cooling if SFP temperature reaches 100°F. _____
- 6.5 Verify a 10 CFR 50.59 screening/evaluation for the contingency plan has been approved. _____
- 6.6 Establish SFP temperature as close to 70°F as possible prior to isolating SW to the SFP. _____
- 6.7 Verify W-47, Drumming Area Supply Fan, running. _____
- 6.8 Verify W-33 A and B, SFP Supply Fans, running. _____
- 6.9 Verify W-36 A and B, SFP Exhaust Fans, running. _____
- 6.10 Verify shut and remove the caps from the following valves:
- | | | |
|--------|-------------------------------------|-------|
| SW-663 | HX-13 A/B SFP HX Return Vent | _____ |
| SW-646 | HX-13 A/B SFP HX Return Header Vent | _____ |
| SW-658 | HX-13 A/B SFP HX Return Vent | _____ |
| SW-656 | HX-13A SFP HX Outlet Drain | _____ |
| SW-657 | HX-13B SFP HX Outlet Drain | _____ |
| SW-654 | HX-13A SFP HX Inlet Vent | _____ |
| SW-655 | HX-13B SFP HX Inlet Vent | _____ |
| SW-651 | HX-13 A/B SFP HX Supply Vent | _____ |
- 6.11 Attach a drain hose to the following valves and route it to the U1 or U2 Facade Sump:
- | | | |
|--------|-------------------------------------|-------|
| SW-646 | HX-13 A/B SFP HX Return Header Vent | _____ |
| SW-658 | HX-13 A/B SFP HX Return Vent | _____ |
| SW-656 | HX-13A SFP HX Outlet Drain | _____ |
| SW-657 | HX-13B SFP HX Outlet Drain | _____ |
| SW-654 | HX-13A SFP HX Inlet Vent | _____ |
| SW-655 | HX-13B SFP HX Inlet Vent | _____ |

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NOTE: The following step will place RE-220 OOS (See P&L 3.6).

6.12 Shut SW-668, HX-13A/B SFP HX Return RE-220/SG-4456 Outlet. _____

6.13 Shut SW-666, HX-13A/B SFP HX Return RE-220 Inlet 2nd Off Isolation. _____

NOTE: The following step will isolate SW cooling to the SFP HX's.

6.14 Isolate cooling to SFP heat exchangers.

6.14.1 Shut SW-650, HX 13 A/B SFP HX Supply _____

6.14.2 Take data and complete Attachment B. _____

6.14.3 Monitor SFP temperature using Attachment C. _____

6.15 Verify open SW-652, HX 13A SFP HX Inlet. _____

6.16 Verify open SW-653, HX 13B SFP HX Inlet. _____

6.17 Verify open SW-2930A, HX-13A SFP HX Outlet. _____

6.18 Verify open SW-2930B, HX-13B SFP HX Outlet. _____

6.19 Verify open SW-660, HX-13A/B SFP HX Return Throttle, if possible. _____

6.20 Verify open SW-661, HX-13A/B SFP HX Return Throttle, if possible. _____

***CAUTION* IF CW WATERBOX ALARMS OR VACUUM CONTROL
TANK LOW VACUUM ALARMS DURING THE
FOLLOWING STEP, IMMEDIATELY SHUT SW-651.**

6.21 Open SW-651, HX-13 A/B SFP HX Supply Vent for 5 minutes to allow
the residual SW to be vacuum dragged to the SW return header.

6.22 Shut SW-651, HX-13 A/B SFP HX Supply Vent. _____

6.23 Shut SW-664, HX-13A/B SFP HX Return Isolation. _____

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CAUTION AIR MAY LEAK PAST SW-664 WHEN OPENING
SW-651 IF SW-664 IS NOT LEAK TIGHT. CHECK FOR
AIR INFILTRATION WHEN OPENING SW-651 AND
INFORM DSS IF SW-664 IS LEAKING BY.

6.24 Open SW-651, HX-13A/B SFP HX Supply Vent. _____

6.25 Open SW-663, HX-13 A/B SFP HX Return Vent. _____

6.26 Open the following valves to the SW piping to allow the SW to drain to
the U1 or U2 Facade Sump:

SW-646 HX-13 A/B SFP HX Return Header Vent _____

SW-658 HX-13 A/B SFP HX Return Vent _____

SW-656 HX-13A SFP HX Outlet Drain _____

SW-657 HX-13B SFP HX Outlet Drain _____

SW-654 HX-13A SFP HX Inlet Vent _____

SW-655 HX-13B SFP HX Inlet Vent _____

6.27 Make a copy of the completed Attachment B and give it to the appropriate
Maintenance Planner for inclusion in their work package. _____

NOTE: *Return the SFP SW Cooling to service as soon as possible paying
particular attention to the times calculated in Attachment B.*

7.0 RESTORATION OF SW TO THE SFP HEAT EXCHANGERS

7.1 Shut the following valves:

SW-663 HX-13 A/B SFP HX Return Vent _____

SW-646 HX-13 A/B SFP HX Return Header Vent _____

SW-658 HX-13 A/B SFP HX Return Vent _____

SW-656 HX-13A SFP HX Outlet Drain _____

SW-657 HX-13B SFP HX Outlet Drain _____

SW-654 HX-13A SFP HX Inlet Vent _____

SW-655 HX-13B SFP HX Inlet Vent _____

SW-651 HX-13 A/B HX Supply Vent _____

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NOTE: *If any of the valves listed in step 7.2 are removed for maintenance, ensure the pressure boundaries are intact and annotate as such. If they are not removed for maintenance, the valves shall be open.*

7.2 Verify open/flanged the following valves:

SW-652	HX-13A SFP HX Inlet	O/ Boundaries Intact	_____
SW-653	HX-13B SFP HX Inlet	O/ Boundaries Intact	_____
SW-2930A	HX-13A SFP HX Outlet	O/ Boundaries Intact	_____
SW-2930B	HX-13B SFP HX Outlet	O/ Boundaries Intact	_____
SW-660	HX-13A/B SFP HX Return Throttle	O/ Boundaries Intact	_____
SW-661	HX-13A/B SFP HX Return Throttle	O/ Boundaries Intact	_____

7.3 Remove the cap on SW-673, HX-13A/B SFP HX Return PI-2950 Test Connection.

7.4 Attach a hose to SW-663, HX-13 A/B SFP HX Return Vent.

7.5 Route SW-663 vent hose to the U1 or U2 Facade Sump.

7.6 Slowly crack open SW-650, HX-13A/B SFP HX Supply.

7.7 When SW pressure on PI-2950 stops rising, fully open SW-650.

7.8 Completely vent off the air in the SFP Heat Exchanger SW lines through the following valves:

SW-654	HX-13A SFP HX Inlet Vent	_____
SW-655	HX-13B SFP HX Inlet Vent	_____
SW-673	HX-13A/B SFP HX Return PI-2950 Test Conn	_____
SW-663	HX-13 A/B SFP HX Return Vent	_____
SW-646	HX-13 A/B SFP HX Return Header Vent	_____
SW-658	HX-13 A/B SFP HX Return Vent	_____

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7.9 Verify shut and capped the following valves:

SW-648 RE-220 Downstream Drain

SW-649 RE-220 Upstream Drain

SW-662 RE-220 Outlet Drain

7.10 Verify open the following valves:

SW-665 RE-220 Inlet First Off Isolation

SW-666 RE-220 Inlet Second Off Isolation

SW-667 RE-220 Outlet First Off Isolation

SW-668 RE-220 Outlet Second Off Isolation

7.11 Annotate which SFP HX, HX-13A/B will be in standby, if neither will be in standby, NA this step.

HX-13A

HX-13B

NOTE: Steps 7.12 and 7.13 allow any residual air in the SW lines that could not be manually vented to be swept to the SW return header. Waterbox low level and/or vacuum control tank low vacuum alarms may be received. If alarms are received, shut SW-664 until alarms are clear and proceed with Step 7.12.

7.12 Slowly open SW-664, HX-13A/B SFP HX Return Isolation.

NOTE: The following step may be marked N/A if valve has been removed from the system for maintenance.

7.13 Wait 5 minutes then shut the standby SFP HX outlet MOV (see step 7.11).

SW-2930A

SW-2930B

NOTE: Ensure SFP flow and SW flow are lined up to the same SFP HX (HX-13) to cool down the SFP.

7.14 Control SFP temperature IAW OP-8A using the appropriate throttle valve SW-660 or SW-661.

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PMT

- 7.15 Verify RE-220 has sample flow as seen in SG-4456, RE-220 Outlet Sightglass. _____
- 7.16 Declare RE-220 back in service using P&L 3.6. _____
- 7.17 Remove hoses, as applicable, and cap the following valves:
- | | | |
|--------|--|-------|
| SW-654 | HX-13A SFP HX Inlet Vent | _____ |
| SW-655 | HX-13B SFP HX Inlet Vent | _____ |
| SW-656 | HX-13A SFP HX Outlet Drain | _____ |
| SW-657 | HX-13B SFP HX Outlet Drain | _____ |
| SW-673 | HX-13A/B SFP HX Return PI-2950 Test Conn | _____ |
| SW-658 | HX-13 A/B SFP HX Return Vent | _____ |
| SW-646 | HX-13 A/B SFP HX Return Header Vent | _____ |
| SW-663 | HX-13 A/B SFP HX Return Vent | _____ |
- 7.18 Secure W-33 A and B, SFP Supply Fans. _____

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Attachment A

Step 5.1.12

Condition	Time	TIC-635 (°F)	Heat Up Rate (Note 1)
Service Water Secured			
+30 minutes			
+1 hour			
+2 hours			
+3 hours			
+4 hours			
+5 hours			
+6 hours			

Step 5.2.12

Condition	Time	TIC-635 (°F)	Heat Up Rate (Note 1)
Service Water Secured			
+30 minutes			
+1 hour			
+2 hours			
+3 hours			
+4 hours			
+5 hours			
+6 hours			

Note 1: $HUR = \frac{(t_f - t_o)}{(h_f - h_o)}$

HUR = Heat up rate

t_o = Initial temperature when SW secured (TIC-635)

t_f = Final temperature (TIC-635)

h_o = Initial time when SW secured (hours)

h_f = Final time (hours)

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Attachment B

Step 6.14.2

Condition	Time/Date	TIC-635 (t_o)°F
SW-650 shut		

Condition	Temperature Rise (°F)	Heat Up Rate (from Attach. A)	Hours (Note 1)	Date/Time (Note 2)
Time to 100°F	$(100 - t_o) =$			(Note 3)
Time to 120°F	$(120 - t_o) =$			(Note 4)
Time to complete contingencies	20			
Time to 145°F	$(145 - t_o) =$			(Note 5)

NOTE 1: Hours until temperature is reached is calculated by:

$$\text{Hours} = \frac{\text{Temperature Rise}}{\text{Heatup Rate}}$$

NOTE 2: Date and Time is calculated by adding the hours calculated in Note 1 to the Date/Time that SW-650 was shut.

NOTE 3: Time to 100°F is the estimated time allowed to perform maintenance.

NOTE 4: Time to 120°F is the estimated time allowed to complete contingency actions to return SFP cooling. Contingencies should be expected to be complete prior to reaching 120°F.

NOTE 5: Time to 145°F is the estimated time prior to exceeding the highest allowed SFP temperature.

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Attachment C

[illegible]

NOTE 1: Temperatures should be taken about every two hours, but at a minimum of once every four hours.

NUCLEAR POWER BUSINESS UNIT
OPERATIONS REFUELING TESTS

ORT INDEX U1
Revision 185
January 31, 1997

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UNIT 1

PROCEDURE NUMBER	PROCEDURE TITLE	REVISION NUMBER	EFFECTIVE DATE	BIENNIAL REVIEW DATE		
ORT INDEX A	Completion Status Index	10	I	06/09/95	12/21/92	
ORT 3	Safety Injection Actuation with Loss of Engineered Safeguards AC	26	C	08/02/93	08/02/93	
ORT 3 APP C	Review of ORT 3 Test Results.....	6	I	04/29/93	04/29/93	
ORT 3A U1	Safety Injection Actuation with Loss of Engineered Safeguards AC, Unit 1	30	C	04/12/96	04/04/96	
ORT 3B	Safety Injection Actuation with Loss of Engineered Safeguards AC	28	C	04/03/95	04/03/95	
ORT 3C U1	Auxiliary Feedwater System and AMSAC Actuation, Unit 1	0	C	04/12/96	04/12/96	
ORT 4	Main Turbine Mechanical Overspeed Trip Device	9	C	01/31/97	03/04/96	
ORT 6	Containment Spray Sequence Test.....	15	R	02/12/96	02/12/96	
ORT 7	Operation of Backdraft Dampers	8	R	02/13/95	02/22/93	
ORT 9	Preparation for Integrated Leak Rate Test.....	13	R	03/19/93	03/19/93	
ORT 9 APP A	Component Cooling to and from 1P1A(P15, 17).....	5	R	03/19/93	03/19/93	
ORT 9 APP B	Component Cooling to and from 1P1B(P16, 18).....	5	R	03/19/93	03/19/93	
ORT 9 APP C	Hot Leg Sample.....(P28A).....	5	R	03/02/93	03/02/93	
ORT 9 APP D	Pressurizer Liquid Sample	(P28B).....	5	R	03/02/93	03/02/93
ORT 9 APP E	Pressurizer Steam Space Sample.....	(P28C).....	5	R	03/02/93	03/02/93
ORT 9 APP F	RMW to Containment	(P30C).....	3	R	03/02/93	03/02/93
ORT 9 APP G	Nitrogen to SI Accumulators.....	(P14C).....	3	R	03/12/93	03/12/93
ORT 9 APP H	Instrument Air Supply	(P33A)	9	R	03/05/93	03/05/93
ORT 9 APP I	Instrument Air Supply	(P33B).....	8	R	03/26/90	03/26/90
ORT 9 APP J	"A" Steam Generator Sample.....	(P34B).....	4	R	03/26/90	03/26/90
ORT 9 APP K	"B" Steam Generator Sample	(P34C).....	4	R	03/26/90	03/26/90
ORT 9 APP L	Steam Generator B Blowdown.....	(P50).....	6	R	03/12/93	03/12/93
ORT 9 APP M	Steam Generator A Blowdown.....	(P51).....	6	R	03/05/93	03/05/93
ORT 9 APP N	Nitrogen to PRT	(14A).....	5	R	03/26/90	03/26/90
ORT 9 APP O	Reactor Coolant Pump Seal Return.....	(P11).....	1	R	03/26/90	03/26/90
ORT 9 APP P	Demineralized Water Supply to Containment	(P12A).....	2	R	07/14/93	07/14/93
ORT 9 APP R	Sample Line from PRT to Gas Analyzer	(P34A).....	2	R	03/02/93	03/02/93
ORT 9 APP S	Sample Line from RCDT to Gas Analyzer	(P34D).....	2	R	03/02/93	03/02/93
ORT 9 APP T	Heat Steam to Containment.....	(P52).....	1	R	03/26/90	03/26/90
ORT 9 APP U	Containment Condensate Return.....	(P53).....	2	R	03/12/93	03/12/93

* Indicates leak testing done with test rig located outside of containment.

C = Continuous Use
R = Reference Use
I = Information Use

(T - Temporary Change)

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OPERATIONS REFUELING TESTS

ORT INDEX U1
Revision 185
January 31, 1997

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UNIT 1

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ORT 9 APP V	Train A Spray System Containment			
	Isolation Valves.....(P54).....	3 C	06/09/95	03/12/93
ORT 9 APP W	Train B Spray System Containment			
	Isolation valves.....(P55).....	2 R	03/12/93	03/12/93
ORT 9 APP X	1RE-211 and 212 Supply(X1).....	3 R	12/05/94	03/19/93
ORT 9 APP Y	1RE-211 and 212 Return.....(X2).....	3 R	12/05/94	03/22/93
ORT 9 APP Z	Component Cooling to and from 1HX-4,			
	Excess Letdown Heat Exchanger.....	1 R	03/22/93	03/22/93
ORT 9 CL-1B	Containment Integrity Checklist for an ILRT.....	5 R	03/22/93	03/22/93
ORT 10	Recovery from Integrated Leak Rate Test.....	11 R	03/19/93	03/19/93
ORT 11	Check Valve Stroke Test.....	4 R	03/25/93	03/25/93
ORT 12	Fuel Transfer Tube Flange Seal.....	8 C	09/20/96	10/21/93
ORT 13	Equipment Hatch Flange Seals.....	9 C	02/22/95	02/22/93
ORT 15	Fuel Manipulator and Fuel Transfer System			
	Checkout.....	16 R	10/02/95	01/17/94
ORT 17	Containment Integrated Leak Rate Test.....	0 C	03/19/93	03/19/93
ORT 18				
ORT 19				
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ORT 21				
ORT 22				
ORT 23				
ORT 24	SI Test Line CIVs Leakage Test.....	2 C	03/10/95	12/05/94
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ORT 26	Letdown Line.....(P10).....	11 C	02/22/95	02/07/94
ORT 27	Reactor Coolant Pump Seal Return.....(P11).....	11 C	02/22/95	01/16/95
ORT 28	Demineralized Water Supply to			
	Containment.....(P12A).....	11 C	10/25/96	10/28/93
ORT 29	Permanent Test Connection.....(P12B).....	2 C	01/09/97	01/09/97
ORT 30	RCDT To Vent Header.....(P12C).....	11 C	02/06/95	02/06/95
ORT 31	Nitrogen Supply to the Pressurizer			
	Relief Tank.....(P14A).....	11 C	01/31/97	04/29/93
ORT 32	Nitrogen to the SI Accumulators.....(P14C).....	12 C	03/22/96	07/15/93
*ORT 33	Post-Accident Containment Vent			
	System-Return.....(P25C).....	15 C	02/22/95	07/16/93
ORT 34	Normal Charging Line.....(P26).....	9 C	09/22/95	09/22/95
ORT 35	Hot Leg Sample Line.....(P28A).....	13 C	10/02/95	11/30/93
ORT 36	Pressurizer Liquid Sample Line.....(P28B).....	9 C	02/24/95	11/30/93

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ORT 37	Pressurizer Steam Space Sample Line(P28C).....	10	C	02/24/95	11/30/93
ORT 38					
ORT 39	Seal Injection to 1P-1A(P29A).....	10	C	02/22/95	02/15/93
ORT 40	Seal Injection to 1P-1B(P29B).....	12	C	02/22/95	02/22/93
ORT 41	Permanent Test Connection(P30A).....	4	C	01/09/97	01/09/97
ORT 42	RMUW to Containment(P30C).....	13	C	02/06/95	02/06/95
*ORT 43	Containment Sampling Line.....(P31B).....	8	C	02/13/95	02/22/93
*ORT 44	Post-Accident Containment Ventilation System - Vent.....(P31C).....	14	C	02/24/95	01/16/95
ORT 45					
ORT 46	Auxiliary Charging Line(P32C).....	12	C	09/22/95	09/22/95
*ORT 47	Instrument Air Supply(P33A).....	13	C	02/06/95	02/06/95
*ORT 48	Instrument Air Supply(P33B).....	12	C	02/06/95	02/06/95
*ORT 49	Service Air Supply to Containment(P33C).....	11	C	02/24/95	04/29/93
ORT 50	PRT to Gas Analyzer Sample Line(P34A).....	9	C	01/31/97	11/30/93
ORT 51	Steam Generator A Sample Isolation(P34B).....	6	C	02/24/95	02/24/95
ORT 52	Steam Generator B Sample Isolation(P34C).....	6	C	02/06/95	02/06/95
ORT 53	Reactor Coolant Drain Tank to Gas Analyzer(P34D).....	7	C	01/16/95	01/16/95
ORT 54	Steam Generator B Blowdown.....(P50).....	10	C	02/24/95	12/13/94
ORT 55	Steam Generator A Blowdown.....(P51).....	9	C	02/24/95	12/13/94
ORT 56	Heating Steam to Containment(P52).....	7	C	02/13/95	02/22/93
ORT 57	Containment Condensate Return.....(P53).....	9	C	06/09/95	08/15/94
ORT 58	Containment Test Connection.....(P56).....	9	C	02/24/95	02/22/93
*ORT 59	Train A Spray System CIV Leakage Test.....	17	C	01/31/97	12/05/94
*ORT 60	Train B Spray System CIV Leakage Test.....	19	C	01/31/97	05/21/93
*ORT 61	Sump A Drain to Auxiliary Building Sump(P71).....	7	C	02/24/95	02/24/95
ORT 64	RE-211 and 212 Supply(PX1).....	12	C	02/24/95	02/22/93
ORT 65	RE-211 and 212 Return.....(PX2).....	18	C	02/24/95	12/21/93
*ORT 66A	Containment Pressure.....(P31A).....	10	C	02/13/95	02/13/95
*ORT 66B	Containment Pressure.....(P14B).....	6	C	02/13/95	02/13/95
*ORT 66C	Containment Pressure.....(P32A).....	6	C	02/13/95	02/13/95
ORT 67	Component Cooling Water to and from the Excess Letdown Heat Exchanger - Refueling Shutdown(P19, 20).....	15	C	01/31/97	08/02/93
ORT 68	Component Cooling Water to and from P1A - Refueling Shutdown.....(P15, 17).....	17	C	03/10/95	07/16/93

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ORT 69	Component Cooling Water to and from 1P-1B - Refueling Shutdown ... (P16, 18).....	16	C	03/10/95	08/02/93
ORT 70					
ORT 71	Electrical Penetration Leak Test..... (P58).....	7	C	01/31/97	02/13/95
ORT 72	Electrical Penetration Leak Test..... (P21, 22).....	8	C	01/25/97	02/13/95
ORT 73	Electrical Penetration Leak Test..... (P28).....	8	C	01/25/97	02/13/95
ORT 74					
*ORT 75	Mechanical Penetration Leak Test (P50, 51, 52, 53) ..	8	C	02/13/95	02/13/95
*ORT 76	Mechanical Penetration Leak Test (P58).....	6	C	02/13/95	02/13/95
*ORT 77	Mechanical Penetration Leak Test (P57).....	6	C	02/13/95	02/13/95
*ORT 78	Mechanical Penetration Leak Test . (P71, 70, 69).....	7	C	02/13/95	02/13/95
*ORT 79	Mechanical Penetration Leak Test 6	6	C	02/24/95	10/24/91
*ORT 80	Mechanical Penetration Leak Test . (P29, 13, 27).....	8	C	02/13/95	02/13/95
*ORT 81	Mechanical Penetration Leak Test . (P37, 38, 36, 40, 48, 45, 44, 46).....	5	C	02/13/95	02/13/95
*ORT 82	Mechanical Penetration Leak Test . (P47, 43, 39, 35, 55, 54, 5, 6).....	4	C	02/13/95	02/13/95
*ORT 83	Mechanical Penetration Leak Test . (P15, 16, 17, 18, 10, 11).....	7	C	02/13/95	02/13/95
*ORT 84	Mechanical Penetration Leak Test . (P8, 7, 9, 22).....	7	C	02/13/95	02/13/95

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