

# CATEGORY 1

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 WIDAY, J.A.      Rochester Gas & Electric Corp.      *UPDATED BY RCB 9/29/98*  
 RECIP. NAME      RECIPIENT AFFILIATION

VISSING, G.S

SUBJECT: Rev 13 to AP-SW.1, "Svc Water Leak." W/980824 ltr.

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Plant Manager  
Ginna Nuclear Plant

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August 24, 1998

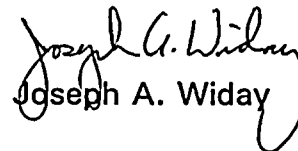
U.S. Nuclear Regulatory Commission  
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Attn: Guy S. Vissing  
Project Directorate I-1  
Washington, D.C. 20555

Subject: Emergency Operating Procedures  
R.E. Ginna Nuclear Power Plant  
Docket No. 50-244

Dear Mr. Vissing:

As requested, enclosed are Ginna Station Emergency Operating Procedures.

Very truly yours,

  
Joseph A. Widay

JAW/jdw

xc: U.S. Nuclear Regulatory Commission  
Region I  
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Ginna USNRC Senior Resident Inspector

Enclosure(s):

AP Index  
AP-SW.1, Rev 13

9809010319 980824  
PDR ADOCK 05000244  
P PDR

REPORT NO. 01  
REPORT: NPSP0200  
DOC TYPE: PRAP

GINNA NUCLEAR POWER PLANT  
PROCEDURES INDEX  
ABNORMAL PROCEDURE

05/22/97 PAGE: 1

PARAMETERS: DOC TYPES - PRATT PRAP PRECA PRPT STATUS: EF QU 5 YEARS ONLY:

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
AP-CCW.1	LEAKAGE INTO THE COMPONENT COOLING LOOP	011	02/24/96	04/20/95	04/20/00	EF
AP-CCW.2	LOSS OF CCW DURING POWER OPERATION	012	02/24/96	08/30/94	08/30/99	EF
AP-CCW.3	LOSS OF CCW - PLANT SHUTDOWN	010	03/29/96	08/30/94	08/30/99	EF
AP-CR.1	CONTROL ROOM INACCESSIBILITY	014	12/18/96	11/17/94	11/17/99	EF
AP-CVCS.1	CVCS LEAK	011	06/03/96	04/20/95	04/20/00	EF
AP-CW.1	LOSS OF A CIRC WATER PUMP	007	11/26/96	04/21/93	04/21/98	EF
AP-ELEC.1	LOSS OF 12A AND/OR 12B BUSES	013	06/03/96	03/21/95	03/21/00	EF
AP-ELEC.2	SAFEGUARD BUSES LOW VOLTAGE OR SYSTEM LOW FREQUENCY	007	02/11/94	02/11/94	02/11/99	EF
AP-ELEC.3	LOSS OF 12A AND/OR 12B TRANSFORMER (BELOW 350 F)	003	05/22/97	03/06/93	03/06/98	EF
AP-FW.1	PARTIAL OR COMPLETE LOSS OF MAIN FEEDWATER	010	06/03/96	04/21/93	04/21/98	EF
AP-IA.1	LOSS OF INSTRUMENT AIR	013	04/07/97	09/09/94	09/09/99	EF
AP-PRZR.1	ABNORMAL PRESSURIZER PRESSURE	009	06/03/96	09/29/94	09/29/99	EF
AP-RCC.1	CONTINUOUS CONTROL ROD WITHDRAWAL/INSERTION	006	02/24/96	06/04/93	06/04/98	EF
AP-RCC.2	RCC/RPI MALFUNCTION	007	02/06/97	04/23/93	04/23/98	EF
AP-RCC.3	DROPPED ROD RECOVERY	002	06/03/96	04/23/93	04/23/98	EF
AP-RCP.1	RCP SEAL MALFUNCTION	010	05/31/96	04/20/95	04/20/00	EF
AP-RCS.1	REACTOR COOLANT LEAK	011	06/03/96	04/20/95	04/20/00	EF
AP-RCS.2	LOSS OF REACTOR COOLANT FLOW	008	06/03/96	10/08/93	10/08/98	EF
AP-RCS.3	HIGH REACTOR COOLANT ACTIVITY	006	04/23/93	04/23/93	04/23/98	EF
AP-RCS.4	SHUTDOWN LOCA	006	11/08/96	04/20/95	04/20/00	EF
AP-RHR.1	LOSS OF RHR	010	03/29/96	03/06/93	03/06/98	EF
AP-RHR.2	LOSS OF RHR WHILE OPERATING AT RCS REDUCED INVENTORY CONDITIONS	007	05/15/97	03/21/95	03/21/00	EF
AP-SW.1	SERVICE WATER LEAK	010	02/24/96	07/29/93	07/29/98	EF
AP-TURB.1	TURBINE TRIP WITHOUT RX TRIP REQUIRED	008	06/03/96	05/07/93	05/07/98	EF

REMOVED FROM INDEX BY ACIS 7/29/95  
ACIS 9809010319 98/08/94  
FOR REV. 1.3 TO 9A-SM-1/1 "SUC UPBALANCE", LTR. DATED 8/24/98

REPORT NO. 01  
REPORT: NPSP0200  
DOC TYPE: PRAP

GINNA NUCLEAR POWER PLANT  
PROCEDURES INDEX  
ABNORMAL PROCEDURE

05/22/97 PAGE: 2

PARAMETERS: DOC TYPES - PRATT PRAP PRECA PRPT STATUS: EF QU 5 YEARS ONLY:

PROCEDURE NUMBER	PROCEDURE TITLE	REV	EFFECT DATE	LAST REVIEW	NEXT REVIEW	ST
AP-TURB.2	TURBINE LOAD REJECTION	015	06/03/96	06/04/93	06/04/98	EF
AP-TURB.3	TURBINE VIBRATION	008	12/04/96	03/26/93	03/26/98	EF
AP-TURB.4	LOSS OF CONDENSER VACUUM	011	06/03/96	03/26/93	03/26/98	EF
AP-TURB.5	RAPID LOAD REDUCTION	002	06/03/96	07/10/95	07/10/00	EF
TOTAL FOR PRAP	28					

EOP: AP-SW.1	TITLE: SERVICE WATER LEAK	REV: 9 PAGE 1 of 10
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ROCHESTER GAS AND ELECTRIC CORPORATION

GINNA STATION

CONTROLLED COPY NUMBER 23

TECHNICAL REVIEW

PORC REVIEW DATE 7-28-93

*Bill Marshall*  
PLANT SUPERINTENDENT

7-29-93  
EFFECTIVE DATE

CATEGORY 1.0

REVIEWED BY: \_\_\_\_\_



EOP: AP-SW.1	TITLE: SERVICE WATER LEAK	REV: 9 PAGE 2 of 10
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A. PURPOSE - This procedure provides the necessary instructions to respond to a service water system leak.

B. ENTRY CONDITIONS/SYMPTOMS

1. SYMPTOMS - The symptoms of SERVICE WATER LEAK are:

- a. Service water header pressure low alarms on computer, or
- b. Sump pump activity increases in containment, the AUX BLDG, or INT BLDG, OR
- c. Unexplained increase in the waste hold-up tank, or
- d. Visual observation of a SW leak, or
- e. Annunciator C-2, CONTAINMENT RECIRC CLRS WATER OUTLET HI TEMP 217°F, lit, or
- f. Annunciator C-10, CONTAINMENT RECIRC CLRS WATER OUTLET LO FLOW 920 GPM, lit, or
- g. Annunciator E-31, CONTAINMENT RECIRC FAN CONDENSATE HI-HI LEVEL alarm, exhibits an unexplained increase in frequency, or
- h. Annunciator H-6, CCW SERVICE WATER LO FLOW 1000 GPM, lit.

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
***** <u>CAUTION</u> *****		
	<ul style="list-style-type: none"> <li>o IF, AT ANY TIME DURING THIS PROCEDURE, A REACTOR TRIP OR SI OCCURS, E-0, REACTOR TRIP OR SAFETY INJECTION, SHALL BE PERFORMED.</li> <li>o IF EITHER D/G RUNNING WITHOUT SW COOLING AVAILABLE, THEN STOP THE AFFECTED D/G TO PREVENT OVERHEATING.</li> </ul>	
*****		
1	Verify 480V AC Emergency Busses 17 and 18 - ENERGIZED	Ensure associated D/G(s) running and attempt to manually load busses 17 and/or 18 onto the D/G(s) if necessary.
2	Verify At Least One SW Pump Running In Each Loop: <ul style="list-style-type: none"> <li>• A or B pump in loop A</li> <li>• C or D pump in loop B</li> </ul>	<u>IF</u> a SW pump has tripped, <u>THEN</u> ensure other pump in the affected loop is running.



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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<p><u>NOTE:</u> Abnormally low pressure in either SW loop may indicate that the idle pump check valve is open. This may be corrected by restarting or isolating the idle pump.</p>		
<p>3 Check SW System Status:</p>		
a.	Check SW loop header pressures:	a. <u>IF</u> three SW pumps operating and either loop pressure less than 40 psig, <u>THEN</u> trip the reactor and go to E-0, REACTOR TRIP OR SAFETY INJECTION.
	o Pressure in both loops - APPROXIMATELY EQUAL	
	o PPCS SW low pressure alarm status - NOT LOW	<u>IF</u> only two SW pumps operating and either loop pressure less than 45 psig, <u>THEN</u> start one additional SW pump (258 kw each pump).
	o Pressure in both loops - STABLE OR INCREASING	
b.	Check SW loop header pressures - GREATER THAN 55 PSIG	b. <u>IF</u> either SW loop pressure is less than 55 PSIG with three SW pumps running <u>AND</u> cause can <u>NOT</u> be corrected, <u>THEN</u> initiate a controlled shutdown while continuing with this procedure (Refer to O-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN).



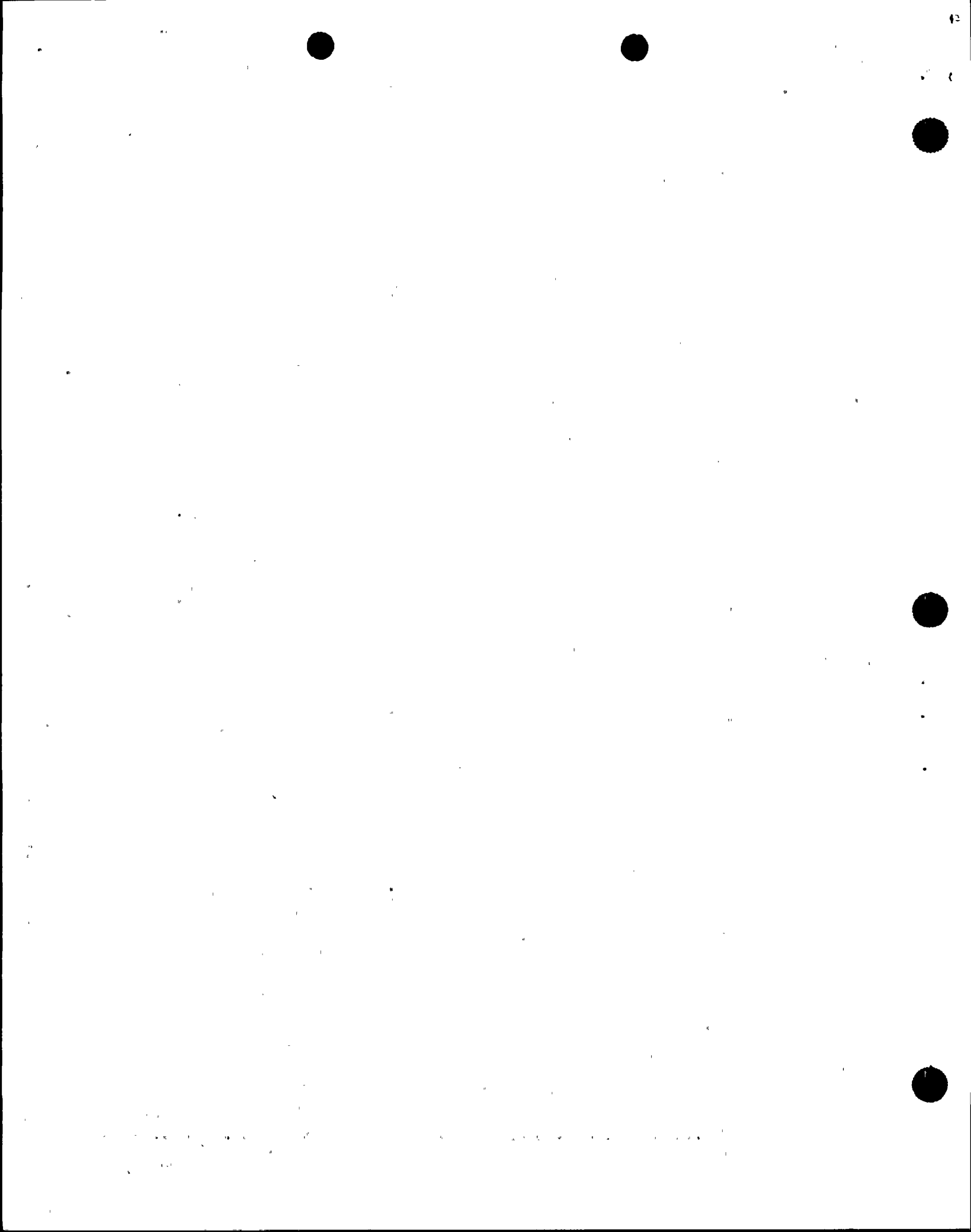
EOP: AP-SW.1	TITLE: SERVICE WATER LEAK	REV: 9 PAGE 5 of 10
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<p><u>NOTE:</u></p> <ul style="list-style-type: none"> <li>o If SW is lost to any safeguards equipment, the affected component should be declared inoperable and appropriate actions taken as required by Tech Specs, Section 3.</li> <li>o CNMT sump A level of 10 feet is approximately 6 feet 6 inches below the bottom of the reactor vessel.</li> </ul> <p>4 Check For SW Leakage In CNMT:</p> <ul style="list-style-type: none"> <li>a. Check Sump A indication <ul style="list-style-type: none"> <li>o Sump A level - INCREASING</li> </ul> </li> <li>-OR-</li> <li>o Sump A pump start frequency - INCREASING (Refer to RCS Daily Leakage Log)</li> <li>b. Evaluate Sump A conditions: <ul style="list-style-type: none"> <li>1) Verify Leakage within capacity of one Sump A pump (50 gpm)</li> <li>2) Check Sump A level - LESS THAN 10 FEET</li> </ul> </li> <li>c. Direct HP to establish conditions for CNMT entry</li> </ul>		
		<ul style="list-style-type: none"> <li>a. <u>IF</u> the SW leak is <u>NOT</u> in the CNMT, <u>THEN</u> go to Step 6.</li> <li>b. Plant shutdown should be considered, consult plant staff.</li> </ul>



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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<p>*****</p> <p style="text-align: center;"><u>CAUTION</u></p> <p>BEFORE ISOLATING SW TO CNMT RECIRC FANS, REFER TO TECH SPEC SECTION 3.3.2 FOR OPERABILITY REQUIREMENTS.</p> <p>*****</p> <p><u>NOTE:</u></p> <ul style="list-style-type: none"> <li>o One Reactor Compartment cooling fan should be running whenever RCS temperature is greater than 135°F.</li> <li>o CNMT recirc fan condensate collector level indicators may be helpful in identifying a leaking fan cooler.</li> </ul>		
5	<p>Check CNMT recirc fan indications:</p> <ul style="list-style-type: none"> <li>o CNMT recirc fan collector dump frequency - NORMAL (Refer to RCS Daily Leakage Log)</li> <li>o CNMT recirc fan SW flows - APPROXIMATELY EQUAL (INTER BLDG basement by IBELIP)</li> </ul>	<p>Dispatch AO to perform Attachment SW LOADS IN CNMT as necessary. <u>WHEN</u> CNMT SW leak location identified, <u>THEN</u> go to Step 9.</p>



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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
6	<p>Dispatch AO To Screenhouse To Perform The Following:</p> <ul style="list-style-type: none"> <li>a. Verify idle SW pump check valve closed <ul style="list-style-type: none"> <li>o Idle pump shaft stopped</li> <li>o Idle pump discharge pressure - ZERO (unisolate and check local pressure indicator)</li> </ul> </li> <li>b. Investigate for SW leak in Screenhouse - NO EXCESSIVE LEAKAGE INDICATED</li> </ul>	<ul style="list-style-type: none"> <li>a. Notify Control Room of any indication of check valve failure.</li> <li>b. Perform the following: <ul style="list-style-type: none"> <li>1) Identify leak location. <p><u>IF</u> increase in leakage from underground header indicated, <u>THEN</u> isolation of header should be considered (Refer to Attachment SW ISOLATION)</p> </li> <li>2) Notify Control Room of leak location.</li> </ul> </li> </ul>
<p><b>NOTE:</b> Refer to Attachment SW ISOLATION for a list of the major non-safeguards loads supplied by each service water header.</p>		
7	<p>Check Indications For Leak Location:</p> <ul style="list-style-type: none"> <li>o AUX BLDG sump pump start frequency - NORMAL (Refer to RCS Daily Leakage Log)</li> <li>o Annunciator L-9, AUX BLDG SUMP HI LEVEL - EXTINGUISHED</li> <li>o Annunciator L-17, INTER BLDG SUMP HI LEVEL - EXTINGUISHED</li> </ul>	<p>Dispatch AO to the specific area to investigate for leakage.</p>

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
8	Dispatch AO To Locally Investigate For SW Leakage And To Monitor Operating Equipment <ul style="list-style-type: none"><li>• Turbine BLDG</li><li>• SAFW pump room</li></ul>	



EOP: AP-SW.1	TITLE: SERVICE WATER LEAK	REV: 9 PAGE 9 of 10
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
<p><u>NOTE:</u> If SW is lost to either D/G, refer to ER-D/G.2, ALTERNATE COOLING FOR EMERGENCY D/Gs, if cooling is required.</p> <p>9 Evaluate SW Leak Concerns</p> <p>a. Check SW pump status - AT LEAST THREE PUMPS RUNNING</p> <p>b. Intact SW loop header pressure - GREATER THAN 45 PSIG</p> <p>c. Verify leak location - IDENTIFIED</p> <p>d. Verify plant operating at power</p> <p>e. Leak isolation at power - ACCEPTABLE</p>		
		<p>a. <u>IF</u> either SW header pressure less than 45 psig, <u>THEN</u> start third SW pump.</p> <p>b. Dispatch AO to perform the following:</p> <p>1) Split A and B SW headers:</p> <ul style="list-style-type: none"> <li>o Close V-4669 <u>OR</u> V-4760 in B D/G room.</li> <li>o Close V-4611 <u>OR</u> V-4612 in Screenhouse.</li> <li>o Close V-4625 <u>OR</u> V-4626 in INT BLDG clean side.</li> <li>o Close V-4639 <u>OR</u> V-4756 in INT BLDG clean side.</li> </ul> <p>2) <u>IF</u> plant at power, <u>THEN</u> initiate a controlled shutdown (Refer to O-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN).</p> <p>3) Go to Step 10.</p> <p>c. Return to Step 3.</p> <p>d. Verify SW system conditions appropriate for plant mode (Refer to Tech Spec Section 3.3.4.1) and go to Step 10.</p> <p>e. <u>IF</u> plant shutdown required, <u>THEN</u> refer to O-2.1, NORMAL SHUTDOWN TO HOT SHUTDOWN.</p>

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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
10	Dispatch AO(s) To Locally Isolate SW Leak As Necessary	
11	Verify SW Leak Isolated	
	<p>a. Monitor SW System Operation</p> <ul style="list-style-type: none"> <li>SW loop header pressure - RESTORED TO PRE-EVENT VALUE Archive PPCS point ID loop A P2160 OR loop B P2161)</li> <li>Both SW loop header pressures - STABLE</li> </ul> <p>b. Verify at least one SW pump available from each screenhouse AC Emergency bus</p> <ul style="list-style-type: none"> <li>Bus 17, SW pumps A or B</li> <li>Bus 18, SW pumps C or D</li> </ul>	<p>a. IF SW leak can <u>NOT</u> be isolated within the affected header, <u>THEN</u> stop SW pumps in the affected loop and go to Step 12.</p> <p>b. Refer to Tech Spec Section 3.3.4.1 for limiting conditions for operation.</p>
<p><u>NOTE:</u></p> <ul style="list-style-type: none"> <li>Refer to O-9.3, NRC IMMEDIATE NOTIFICATION, for reporting requirements.</li> <li>An A-25.1, GINNA STATION EVENT REPORT, should be submitted for a SW leak in CNMT.</li> </ul>		
12	Notify Higher Supervision	
-END-		



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AP-SW.1 APPENDIX LIST

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